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Catalog of the *Cinara* Species of North America (Homoptera: Aphididae)



David J. Voegtlin
Charles A. Bridges

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Catalog of the *Cinara* Species of North America (Homoptera: Aphididae)

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Illinois Natural History Survey

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Pictured on the cover are *Cinara edulis* (Wilson) on the trunk of a small *Pinus edulis*. The photograph was taken at Colorado National Monument in May 1986 by David Voegtlind.

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Biology
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Introduction

Entomologists engaged in taxonomic research require an in-depth knowledge of the literature on the group in question. The ever increasing volume of papers, coupled with the need to know the historical literature on which the taxonomy is based, presents a major hurdle. For many groups of insects this problem has been addressed, in part through the compilation of detailed catalogs. This is not the case for aphids, and there are no catalogs to the extensive taxonomic literature on this important group.

Because of the economic importance and cosmopolitan distribution of aphids, the literature on them is exceptionally diverse in language and publication. Within the last twenty years, bibliographies by Sharma (1969, 1971, 1972, 1977), Smith (1972), and Szelegiewicz (1969) have brought together the majority of publications on the taxonomy of aphids, and these in conjunction with the world list of Eastop and Hille Ris Lambers (1976) are highly useful to the aphidologist. What is lacking is a thorough annotation of these papers so that researchers can quickly identify those that contain information on the species they are studying. Further, the annotations should make clear which forms of the aphid are discussed in a given paper and what other information can be found there. With those needs in mind, we prepared this catalog on the literature of the *Cinara* of North America. The senior author is responsible for the collection and annotation of the literature. The junior author provided the computer expertise and programs used to prepare this catalog.

The information in this catalog is presented in three sections. The first lists the species along with extensive annotations; the second contains over 200 references related to those species; and the third records the hosts of *Cinara* for which documentation can be provided.

List of Species

Only species that have been recorded in the Nearctic are listed. The arrangement is alphabetical with subspecies (ssp.), synonyms (syn.), and homonyms (hom.) inserted below the presently accepted name. Each species name is followed by the name of the author, the date of the original description, and the genus in which it was described. Five categories of information follow.

Original Description, the first category, provides the name of the publication and the pagination for the original description. This information is followed by the citation number assigned to that publication in the bibliography of this catalog.

Type, the second category, gives the museum in which the type has been deposited, the form—if it was designated, the publication and pagination for this information, and the citation number assigned to that publication in the bibliography of this catalog.

References, the third category, lists the citation number for each reference in this catalog that contains information on a given species beyond distributional or host records. The abbreviations in parentheses following each citation number indicate the forms discussed

and other types of information provided in the publication. References limited to distribution or host records are, however, included in the bibliography and are indicated there by asterisks.

Distribution, the fourth category, lists states in the United States and Mexico and provinces in Canada where a given species has been collected. Postal code abbreviations are used for these geographic units. Distributions were determined by using all publications in the bibliography, those with asterisks and those without.

Hosts, the last category, includes all known hosts for a given species. Citation numbers are given for each host so that readers who question a host record can verify its source. Including more than two citations for each host seemed redundant. Hosts were compiled from all publications in the bibliography, those with asterisks and those without.

The following abbreviations are used in the List of Species:

fund.	fundatrix
ap. viv.	apterous viviparous female
al. viv.	alate viviparous female
ovip.	ovipara
ap. male	apterous male
al. male	alate male
b	biological note
cp	color plate
k	species given in a key
ld	line drawing (whole or part)
n	general note
n. syn.	synonymy created in this reference
p	photograph

The abbreviations used for museums and collections are given below:

BM(NH)	British Museum (Natural History), London
Boudreaux	Boudreaux Collection, Baton Rouge, Louisiana
CNC	Canadian National Collection, Ottawa
CSU	Colorado State University, Ft. Collins, Colorado
EML	Entomological Museum, Zoological Institute, Lund, Sweden
INHS	Illinois Natural History Survey, Champaign, Illinois
ISV	Instituto de Sanidad Vegetal, Buenos Aires, Brazil
MAES	Maine Agricultural Experiment Station, Orono, Maine
UCB	University of California, Berkeley, California
UMN	University of Minnesota, St. Paul, Minnesota
USNM	United States National Museum, Beltsville, Maryland

Bibliography

The bibliography primarily contains literature written by North American authors or by authors of papers dealing with Nearctic aphids. Since many of the species in the genus *Cinara* found in the Nearctic are not native, a number of references based predominately on Palearctic aphids are included. Citations are listed alphabetically and numbered in sequence. Those numbers are used in the species list to direct readers to the appropriate citations in the bibliography.

As noted earlier, many papers in the literature on aphids are made up almost entirely of lists of species found in particular geographic areas and do not contain enough information

to justify including them under the reference headings in the species list. They are, however, included in the bibliography and indicated by asterisks. Following each of these citations is a list of the species mentioned in the paper.

List of Hosts

This list provides the names of the host plants of *Cinara*. The species of *Cinara* that have been found on each are also given. Host names not found in the *Index Kewensis* are not included. Host authors were checked in L.H. Bailey's *Manual of Cultivated Plants* (1949) and in J.C. Willis's *A Dictionary of the Flowering Plants and Ferns* (1973).

Acknowledgments

We wish to thank Dr. G.A. Robinson, University of Manitoba, Winnipeg, and Dr. J.T. Sorenson, California Department of Agriculture, Sacramento, for reviewing the manuscript of this catalog. We are particularly indebted to Audrey Hodgins, editor at the Illinois Natural History Survey, for her meticulous examination of this catalog for inconsistencies. It is much improved by her efforts.

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Eastop, V.F., and D. Hille Ris Lambers. 1976. *Survey of the world's aphids*. Dr. W. Junk, The Hague. 573 p.

Index Kewensis plantarum phanerogamarum 1893–present. The Clarendon Press, Oxford. 2 vol. + 16 suppl.

Sharma, M.L. 1969. *Bibliography of Aphidoidea*, Tome 1. Publications de l' Université de Sherbrooke, Québec, Canada. 293 p.

Sharma, M.L. 1971. *Bibliography of Aphidoidea*, Tome 2. Publications de l' Université de Sherbrooke, Québec, Canada. 221 p.

Sharma, M.L. 1972. *Bibliography of Aphidoidea*, Tome 3. Publications de l' Université de Sherbrooke, Québec, Canada. 207 p.

Sharma, M.L. 1977. *Bibliography of Aphidoidea*, Tome 4. Publications de l' Université de Sherbrooke, Québec, Canada. 214 p.

Smith, C.F. 1972. *Bibliography of the Aphididae of the world*. North Carolina Agricultural Experiment Station Technical Bulletin 216. 717 p.

Szelegiewicz, H. 1969. *Mszycy: szkodniki roślin wektory chorób wirusowych i producenci spadzi*; *Bibliografia*. Państwowe Wydawnictwo Rolnicze Leśne, Warszawa. 250 p.

Willis, J.C. 1973. *A dictionary of the flowering plants and ferns*, 8th ed. Cambridge University Press, Cambridge. 1245 p.

List of Species

abieticola (Cholodkovsky) 1899; see *confinis* (Koch) 1856

abietis (Fitch) 1851; *Lachnus*

ORIGINAL DESCRIPTION: Annu. Rep. N.Y. State Cab. Natur. Hist. 4:67 (49)

TYPE: USNM Rep. N.Y. State Mus. Natur. Hist. 46:411 (188)

REFERENCES: 35 (n); 36 (b); 49 (ap. viv.); 197 (ap. viv.)

DISTRIBUTION: United States: CA, IL, MN, NJ, NY, PA

HOSTS: *Abies concolor* (35, 36); *Picea mariana* (197)

acadiana Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:63–64 (87)

TYPE: CNC (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:64 (87)

REFERENCES: 87 (ap. viv.); 111 (k, ld)

DISTRIBUTION: Canada: NB

HOSTS: *Picea glauca* (87, 110)

alacra Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:205–206 (119)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:206 (119)

REFERENCES: 108 (k, ld); 119 (ap. viv., ld)

DISTRIBUTION: United States: CA, NV

HOSTS: *Abies concolor* (108, 119)

alaskana Hottes 1964; *Cinara*

ORIGINAL DESCRIPTION: Entomol. Ber. 24:50–51 (115)

TYPE: USNM (ap. viv. original designation) Entomol. Ber. 24:51 (115)

REFERENCES: 115 (ap. viv., ld)

DISTRIBUTION: United States: AK

HOSTS: *Picea* sp. (115)

alticola Hottes & Essig 1954; see *osbourni* Knowlton 1942

americana Hottes & Essig 1953; see *arizonica* (Wilson) 1919

anzai Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:169–170 (118)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 66:170 (118)

REFERENCES: 89 (ap. viv., ovip., al. male); 90 (ap. viv., al. viv., ovip., al. male, ld); 118 (al. viv.); 204 (ap. viv., al. viv., k)

DISTRIBUTION: United States: CA, OR

HOSTS: *Pinus albicaulis* (118, 157)

apachea Hottes & Butler 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:65–66 (117)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 68:66 (117)

REFERENCES: 107 (k, ld); 117 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ

HOSTS: *Pinus edulis* (117)

apini (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:31–35 (59)

TYPE: USNM The Thomas Say Foundation 5:23 (175)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., al. male, ld); 63 (ap. viv., al. viv., b, k, ld); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, UT; Canada: PQ

HOSTS: *Pinus banksiana* (185); *Pinus flexilis* (59, 63)*arizonica* (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:22 (214)

TYPE: USNM Can. Entomol. 51:22 (214)

REFERENCES: 120 (n); 174 (ap. viv., al. viv., ld); 175 (ap. viv., al. viv., ovip., b, k, ld); 204 (ap. viv., al. viv., b, k, p); 214 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ, CA, CO, OR; Canada: BC

HOSTS: *Pinus coulteri* (160); *Pinus glabra* (208); *Pinus jeffreyi* (204); *Pinus occidentalis* (204); *Pinus ponderosa* (53, 175); *Pinus sabiniana* (204); *Pinus wallichiana* (208)syn. *americana* Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:164–165 (118)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:165 (118)

REFERENCES: 45 (n. syn.); 118 (ap. viv., al. viv.)

DISTRIBUTION: United States: OR

HOSTS: *Pinus ponderosa* (118)syn. *kinoi* Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:161–162 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:162 (118)

REFERENCES: 45 (n. syn.); 118 (al. viv., ap. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus ponderosa* (118)syn. *lassenensis* Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:162–164 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:163–164 (118)

REFERENCES: 45 (n. syn.); 118 (al. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus ponderosa* (118)syn. *sabinianus* (Swain) 1919; *Lachnus*

ORIGINAL DESCRIPTION: Univ. Calif. Pubs. Entomol. 3:49 (196)

TYPE: UCB Proc. Biol. Soc. Wash. 67:95 (120)

REFERENCES: 120 (n. syn); 196 (ap. viv., al. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus sabiniana* (196)syn. *serrai* Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:159–161 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:161 (118)

REFERENCES: 45 (n. syn.); 118 (ap. viv., al. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus ponderosa* (118)

ater (Gillette & Palmer) 1924; see *atra* (Gillette & Palmer) 1924

atlantica (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:21–22 (214)

TYPE: CSU & USNM (cotypes) Fla. Agr. Exp. Sta. Mono. Ser. 3:15 (182)

REFERENCES: 174 (ap. viv., al. viv., ld); 177 (ap. viv., al. viv.); 179 (b);

182 (ap. viv., al. viv., ovip., al. male, b, ld, p); 214 (ap. viv., al. viv.)

DISTRIBUTION: United States: AL, AR, CT, DE, FL, GA, LA, MA, MS, NC, NY, OH, PA, SC, TN, TX, WV

HOSTS: *Pinus clausa* (182); *Pinus echinata* (182); *Pinus elliottii* (182); *Pinus glabra* (182);

Pinus pungens (182); *Pinus resinosa* (182); *Pinus rigida* (182); *Pinus serotina* (182);

Pinus strobus (182); *Pinus sylvestris* (182); *Pinus taeda* (179, 182); *Pinus virginiana* (182)

syn. *carolina* Tissot 1932; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 16:3–4 (198)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 16:3 (198)

REFERENCES: 10 (b, k); 15 (b); 48 (ap. viv., b); 69 (b); 182 (n. syn.);

198 (ap. viv., al. viv., b, ld); 199 (b, k, ld); 200 (n)

DISTRIBUTION: United States: DE, FL, LA, MA, MD, NC, NJ, NY, PA, SC, VA; Canada: ON

HOSTS: *Pinus clausa* (199); *Pinus echinata* (69); *Pinus glabra* (8); *Pinus palustris* (199);

Pinus resinosa (15, 180); *Pinus rigida* (156, 180); *Pinus taeda* (198, 200);

Pinus virginiana (69, 154)

atra (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:37–39 (59)

TYPE: USNM The Thomas Say Foundation 5:24 (175)

REFERENCES: 10 (misidentification of *canatra* Hottes & Bradley);

63 (ap. viv., al. viv., k, ld; first use of *atra*, an emendation of *ater*); 107 (k, ld);

175 (ap. viv., al. viv., ovip., ap. male, b, k, ld)

DISTRIBUTION: United States: CO, UT

HOSTS: *Pinus edulis* (59, 63); *Pinus monophylla* (142)

syn. *ater* (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:37–39 (59)

TYPE: USNM The Thomas Say Foundation 5:24 (175)

REFERENCES: 59 (ap. viv., al. viv., ovip., ap. male, cp)

DISTRIBUTION: United States: CO

HOSTS: *Pinus edulis* (59)

atripes Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:7–8 (94)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:8 (94)

REFERENCES: 94 (ap. viv., ld); 111 (k, ld)

DISTRIBUTION: United States: ME

HOSTS: *Picea glauca* (94, 111)

australi (Ashmead) 1881; *Lachnus*

ORIGINAL DESCRIPTION: Can. Entomol. 13:67–68 (2)

TYPE: none Fla. Agr. Exp. Sta. Mono. Ser. 3:20 (182)

REFERENCES: 2 (b); 182 (declared *nomen dubium*); 199 (n)

DISTRIBUTION: United States: FL

HOSTS: *Pinus* sp. (2)

azteca Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:155–156 (121)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 67:156 (121)

REFERENCES: 121 (ap. viv., al. viv., ld)

DISTRIBUTION: Mexico: MX [?]

HOSTS: *Pinus oocarpa* (121)***banksiana*** Pepper & Tissot 1955; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 38:85–88 (181)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 38:87 (181)

REFERENCES: 15 (b); 17 (b, ld); 22 (b); 181 (ap. viv., al. viv., n);

182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p)

DISTRIBUTION: United States: MI, PA, WI; Canada: AB, MB, NB, ON, SK

HOSTS: *Pinus banksiana* (15, 181)***bonica*** Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:228–229 (91)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:229 (91)

REFERENCES: 91 (ap. viv., ld); 111 (k, ld); 115 (n)

DISTRIBUTION: United States: AK

HOSTS: *Picea* sp. (91, 111)***bonita*** Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:227–228 (91)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:228 (91)

REFERENCES: 91 (ap. viv., ld); 111 (k, ld); 115 (n)

DISTRIBUTION: United States: AK

HOSTS: *Picea glauca* (91, 111)***braggi*** (Gillette) 1917; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 10:138 (58)

TYPE: USNM The Thomas Say Foundation 5:25 (175)

REFERENCES: 15 (b); 17 (b); 58 (fund., ap. viv., al. viv., ovip., al. male); 111 (k, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 203 (k)

DISTRIBUTION: United States: AK, CO, DE, NJ, OK; Canada: AB, BC, MB, NB, NF, NS, ON, PQ, SK

HOSTS: *Picea abies* (17, 53); *Picea engelmannii* (111); *Picea glauca* (15, 17);*Picea mariana* (15, 17); *Picea pungens* (53, 142); *Picea rubens* (17); *Picea sitchensis* (17, 53)***brevipilosa*** Voegtlín, Remaudière, & Peña 1986; *Cinara*

ORIGINAL DESCRIPTION: Proc. Entomol. Soc. Wash. 88(2):233–236 (207)

TYPE: INHS (ap. viv. original designation) Proc. Entomol. Soc. Wash. 88(2):236 (207)

REFERENCES: 207 (ap. viv., ld, p)

DISTRIBUTION: Mexico: MICH

HOSTS: *Pinus* sp. (207)***brevispinosa*** (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:27–30 (59)

TYPE: USNM The Thomas Say Foundation 5:26 (175)

REFERENCES: 17 (b, ld); 59 (fund., ap. viv., al. viv., ovip., al. male, ld);

63 (ap. viv., al. viv., b, k, ld); 97 (ld); 133 (n); 143 (n);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA, CO, ID, OR, UT; Canada: AB, BC, NB

HOSTS: *Pinus banksiana* (31); *Pinus contorta* (59, 143); *Pinus contorta* var. *latifolia* (17, 53); *Pinus contorta* var. *murrayana* (63, 175)

burrilli* (Wilson) 1919; *Lachniella

ORIGINAL DESCRIPTION: Can. Entomol. 51:42–43 (215)

TYPE: UMN (cotypes) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 73 (n, b); 133 (b); 175 (ap. viv., al. viv., b, k, ld); 215 (ap. viv., al. viv.)

DISTRIBUTION: United States: CO, ID, UT

HOSTS: *Juniperus osteosperma* (133, 142); *Juniperus scopulorum* (175, 215)

caliente* Hottes 1955; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:197–203 (85)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 68:199 (85)

REFERENCES: 85 (ap. viv., al. viv., ovip., al. male, ld); 107 (k, ld)

DISTRIBUTION: United States: AZ, CA, CO

HOSTS: *Pinus edulis* (85, 107)

californica* Hottes & Essig 1953; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:166–167 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:167 (118)

REFERENCES: 118 (ap. viv., al. viv.); 204 (ap. viv., k)

DISTRIBUTION: United States: CA

HOSTS: *Pinus douglasiana* (208); *Pinus durangensis* (208); *Pinus glabra* (208); *Pinus lumholzii* (208); *Pinus nigra* (208); *Pinus occidentalis* (208); *Pinus oocarpa* (208); *Pinus patula* (208); *Pinus roxburghii* (208); *Pinus tabulaeformis* (118)

***caliginosa* Hottes 1961; see *coloradensis* (Gillette) 1917**

***canadensis* Hottes & Bradley 1953; see *cupressi* (Buckton) 1881**

canatra* Hottes & Bradley 1953; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:85–86 (116)

TYPE: CNC (al. viv. original designation) Proc. Biol. Soc. Wash. 66:86 (116)

REFERENCES: 10 (b, k, as *atra* (Gillette & Palmer)); 15 (b); 17 (b, ld); 20 (b);

116 (al. viv., ap. viv., ovip.); 182 (ap. viv., al. viv., ovip., b, k, ld, p)

DISTRIBUTION: United States: DE, MI, PA; Canada: AB, BC, MB, NB, ON, SK

HOSTS: *Pinus banksiana* (15, 116); *Pinus contorta* var. *latifolia* (17)

***carolina* Tissot 1932; see *atlantica* (Wilson) 1919**

caudelli* (Wilson) 1919; *Lachniella

ORIGINAL DESCRIPTION: Can. Entomol. 51:43–44 (215)

TYPE: USNM Can. Entomol. 51:43 (215)

REFERENCES: 111 (k, ld); 174 (ap. viv., al. viv., ld); 215 (ap. viv., al. viv.)

DISTRIBUTION: Canada: BC

HOSTS: *Picea* sp. (111, 215)

chamberlini* Knowlton 1935; *Cinara

ORIGINAL DESCRIPTION: Pan-Pac. Entomol. 11:141–142 (136)

TYPE: USNM [?]

REFERENCES: 136 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: OR, WA

HOSTS: *Pinus monticola* (136)

chinookiana Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:67–69 (83)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:67–69 (83)

REFERENCES: 17 (b); 83 (ap. viv.); 93 (ovip., ap. male, ld); 108 (k, ld)

DISTRIBUTION: United States: OR, UT, WA; Canada: AB

HOSTS: *Abies lasiocarpa* (83, 93)*cognita* Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:153–155 (121)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:155 (121)

REFERENCES: 83 (al. viv.); 121 (ap. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Juniperus communis* (83)*coloradensis* (Gillette) 1917; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 10:133–134 (58)

TYPE: USNM The Thomas Say Foundation 5:27 (175)

REFERENCES: 10 (b, k); 15 (b); 17 (b); 58 (fund., ap. viv., al. viv., ovip., al. male, b);

63 (ap. viv., al. viv., b, k, ld); 111 (k, ld); 133 (ap. viv., al. viv., b, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: AK, CA, CO, ID, UT; Canada: AB, BC, MB, NB, NS, ON, PQ, SK, UT

HOSTS: *Picea engelmannii* (63, 111); *Picea glauca* (15, 17); *Picea pungens* (63, 111);*Picea sitchensis* (53, 178)syn. *caliginosa* Hottes 1961; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 21:17–19 (109)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 21:19 (109)

REFERENCES: 45 (n. syn); 109 (ap. viv., al. viv.); 111 (k, ld); 115 (n)

DISTRIBUTION: United States: AK, CO

HOSTS: *Picea engelmannii* (109, 111); *Picea pungens* (109)*commatula* Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:152–153 (121)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 67:153 (121)

REFERENCES: 114 (k, ld); 121 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Pseudotsuga menziesii* (114, 121)*confinis* (Koch) 1856; *Lachnus*

ORIGINAL DESCRIPTION: Die Pflanzenläuse Aphiden:245 (144)

TYPE: none Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):123 (43)

REFERENCES: 144 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: UT; Canada: BC

HOSTS: *Abies grandis* (53); *Abies lasiocarpa* (53, 142)syn. *abieticola* (Cholodkovsky) 1899; *Lachnus*

ORIGINAL DESCRIPTION: Zool. Anz. 22:470–471 (33)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):123 (43)

REFERENCES: 15 (b); 17 (b); 33 (ap. viv., ld); 43 (b, k, ld); 45 (n. syn.); 108 (k, ld);

120 (ld, n); 204 (ap. viv., k)

DISTRIBUTION: United States: CA; Canada: AB, BC, MB, NB, NF, NS, ON, PQ, SK

HOSTS: *Abies balsamea* (43, 108); *Abies concolor* (17); *Abies grandis* (17, 54); *Abies lasiocarpa* (17, 54); *Cedrus* sp. (108); *Picea* sp. (108, 120)

syn. *lasiocaruae* (Gillette & Palmer) 1930; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 22:543 (62)

TYPE: USNM (ap. viv. lectotype [?]) Ann. Entomol. Soc. Amer. 22:543 (62)

REFERENCES: 62 (fund., ap. viv., ld); 63 (ap. viv., k, ld); 71 (ovip.); 82 (al. viv.);

83 (al. male); 175 (fund., ap. viv., ovip., b, k, ld)

DISTRIBUTION: United States: CO, UT; Canada: BC, NB, NF, ON, PQ, SK

HOSTS: *Abies balsamea* (9, 162); *Abies lasiocarpa* (62, 71)

syn. *vanduzei* (Swain) 1919; *Lachnus*

ORIGINAL DESCRIPTION: Univ. Calif. Pub. Entomol. 3:50–51 (196)

TYPE: UCB Univ. Calif. Pub. Entomol. 3:51 (196)

REFERENCES: 45 (n. syn.); 196 (ap. viv., al. viv., k, ld)

DISTRIBUTION: United States: CA

HOSTS: *Picea* sp. (196)

contortae* Hottes 1958; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:75–76 (97)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:76 (97)

REFERENCES: 97 (ap. viv., ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA

HOSTS: *Pinus contorta* (97)

costata* (Zetterstedt) 1828; *Aphis

ORIGINAL DESCRIPTION: Fauna Insectorum Lapponica 1:559 (220)

TYPE: EML Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):134 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 17 (b); 43 (b, k, ld); 111 (k, ld); 118 (n);

184 (ap. viv., b, k, ld)

DISTRIBUTION: United States: CA, PA, WA; Canada: BC, ON

HOSTS: *Picea abies* (43, 111); *Picea glauca* (53); *Picea pungens* (53); *Picea sitchensis* (118)

hom. *costatus* (Hartig) 1839; *Lachnus*

ORIGINAL DESCRIPTION: Entomol. Notizen 1(4):640–646 (67)

REFERENCES: 82 (homonym and synonym of *costata* (Zetterstedt))

cronartii* Tissot & Pepper 1967; *Cinara

ORIGINAL DESCRIPTION: Fla. Entomol. 50:1–10 (202)

TYPE: USNM (al. viv.) Fla. Entomol. 50:6 (202)

REFERENCES: 182 (ap. viv., al. viv., b, k, ld, p); 202 (ap. viv., al. viv., b, ld)

DISTRIBUTION: United States: FL, GA, MI, MS, SC, VA

HOSTS: *Pinus banksiana* (182); *Pinus clausa* (202); *Pinus elliottii* (182, 202);

Pinus serotina (182); *Pinus taeda* (182, 202)

cupressi* (Buckton) 1881; *Lachnus

ORIGINAL DESCRIPTION: Ray Society Monograph 3:46 (30)

TYPE: BM(NH) Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):136 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 30 (ap. viv., al. viv., cp); 43 (ap. viv., al. viv., b, k, ld);

118 (n)

DISTRIBUTION: United States: CA, NJ, NY, PA, UT; Canada: BC

HOSTS: *Cupressus macrocarpa* (118); *Juniperus chinensis* (43); *Juniperus scopulorum* (43, 155); *Juniperus virginiana* (43); *Thuja* sp. (142)

syn. *canadensis* Hottes & Bradley 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:86–87 (116)

TYPE: CNC (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:87 (116)

REFERENCES: 17 (b); 20 (n); 45 (n. syn.); 116 (ap. viv.)

DISTRIBUTION: United States: NY, PA; Canada: ON

HOSTS: *Juniperus virginiana* (116, 180)syn. *sabinae* (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:9–11 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 17:11 (59)

REFERENCES: 17 (b); 20 (n); 27 (b); 43 (n. syn.);

59 (fund., ap. viv., al. viv., ovip., al. male, ld); 63 (ap. viv., al. viv., b, k, ld);

165 (b); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, MI, NY, UT, WY; Canada: BC

HOSTS: *Juniperus scopulorum* (59, 175); *Juniperus virginiana* (187)*curtihirsuta* Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:275–276 (122)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 67:276 (122)

REFERENCES: 93 (ap. viv., ld); 108 (k, ld); 122 (al. viv.);

204 (fund., ap. viv., al. viv., ovip., b, k, p)

DISTRIBUTION: United States: CA, OR

HOSTS: *Abies concolor* (93, 108)*curtivillosa* Hottes 1955; see *villosa* (Gillette & Palmer) 1931*curtiwahtolca* Hottes 1955; see *wahtolca* Hottes 1953*curvipes* (Patch) 1912; *Lachnus*

ORIGINAL DESCRIPTION: Maine Agr. Exp. Sta. Bull. 202:161–163 (176)

TYPE: MAES Proc. Biol. Soc. Wash. 73:223 (108)

REFERENCES: 1 (b, k); 15 (b); 17 (b); 29 (b, p); 63 (ap. viv., al. viv., k, ld); 108 (k, ld); 121 (n); 133 (b); 143 (n); 170 (ap. viv., al. viv., b, ld, p);

175 (ap. viv., al. viv., ovip., b, k, ld); 176 (ap. viv., al. viv., ovip., al. male, ld);

177 (ap. viv., al. viv.); 204 (ap. viv., al. viv., ovip., al. male, b, k, p)

DISTRIBUTION: United States: CA, CO, CT, ID, MA, ME, NY, OR, UT; Canada: AB, BC,

MB, NB, NS, ON, PQ, SK; Mexico: DF

HOSTS: *Abies balsamea* (15, 177); *Abies concolor* (108, 175); *Abies grandis* (65, 108);*Abies lasiocarpa* (36, 63); *Abies magnifica* (157); *Abies religiosa* (170); *Cedrus deodara* (108, 121);*Juniperus* sp. (64); *Picea engelmannii* (108, 143); *Picea glauca* (1)*diabola* Hottes 1961; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 74:95–97 (113)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 74:97 (113)

REFERENCES: 113 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Pinus coulteri* (113)*difficilis* Hottes & Frison 1931; see *juniperivora* (Wilson) 1919*dubia* Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:156–157 (121)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:157 (121)

REFERENCES: 114 (k, ld); 121 (ap. viv., ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA, OR

HOSTS: *Pseudotsuga menziesii* (121)

edulis* (Wilson) 1919; *Lachniella

ORIGINAL DESCRIPTION: Can. Entomol. 51:44–45 (215)

TYPE: UMN (slides from type series) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 63 (ap. viv., al. viv., k, ld); 107 (k, ld); 133 (ld, n);

171 (fund., ap. viv., al. viv., ovip., al. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 204 (ap. viv., k);

215 (ap. viv., al. viv.)

DISTRIBUTION: United States: CA, CO, NV, UT

HOSTS: *Pinus edulis* (107, 171); *Pinus monophylla* (107, 133)

engelmanniensis* (Gillette & Palmer) 1925; *Lachnus

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 18:527–530 (60)

TYPE: USNM The Thomas Say Foundation 5:30 (175)

REFERENCES: 60 (ap. viv., ovip., al. male, cp, ld); 63 (ap. viv., k, ld); 82 (al. viv.);

111 (k, ld); 175 (ap. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, NV, OR, UT

HOSTS: *Abies* sp. (42); *Picea engelmannii* (82, 111)

***enigma* Hottes & Knowlton 1954; see *obscura* Bradley 1953**

essigi* Hottes 1961; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 74:1–2 (112)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 74:2 (112)

REFERENCES: 112 (ap. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Pinus attenuata* (112)

ferriisi* (Swain) 1918; *Lachnus

ORIGINAL DESCRIPTION: Trans. Am. Entomol. Soc. 44:9–11 (195)

TYPE: UCB (al. viv. lectotype) Proc. Biol. Soc. Wash. 67:98 (120)

REFERENCES: 120 (al. viv., ap. viv., ld); 143 (n); 195 (ap. viv., al. viv., ld); 196 (k, n)

DISTRIBUTION: United States: CA, ID, MN, MT, OR; Canada: BC

HOSTS: *Abies concolor* (195, 196); *Pinus albicaulis* (143); *Pinus monticola* (53, 64)

flexilis* (Gillette & Palmer) 1924; *Lachnus

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:30 (59)

TYPE: USNM The Thomas Say Foundation 5:30 (175)

REFERENCES: 59 (ap. viv., al. viv., ovip., ld); 63 (ap. viv., al. viv., b, k, ld);

175 (ap. viv., al. viv., ovip., b, k, ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus flexilis* (59, 63)

fornacula* Hottes 1930; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 43:186 (70)

TYPE: UMN (ap. viv. original designation) Proc. Biol. Soc. Wash. 43:186 (70)

REFERENCES: 10 (b, k); 15 (b); 17 (b, ld); 63 (ap. viv.); 70 (ap. viv.);

71 (fund., ovip., al. male); 82 (al. viv.); 111 (k, ld); 115 (n); 175 (ap. viv., b, k)

DISTRIBUTION: United States: AK, CO, DE, ID, IN, MN, NY, OR, PA, UT;
 Canada: AB, BC, MB, NB, NF, NS, NT, ON, PE, PQ, SK, UT
 HOSTS: *Picea abies* (153, 180); *Picea engelmannii* (82, 111); *Picea glauca* (15, 115);
Picea mariana (15, 115); *Picea pungens* (71, 175); *Picea rubens* (17); *Picea sitchensis* (53)

fresai Blanchard 1939; *Cinara*

ORIGINAL DESCRIPTION: *Physis* 17:860 (6)

TYPE: ISV Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):140 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 6 (al. viv., ld); 43 (ap. viv., al. viv., b, k)

DISTRIBUTION: United States: CA, FL, OR

HOSTS: *Cupressus goveniana* var. *pygmaea* (208); *Cupressus macnabiana* (208);
Cupressus sempervirens (160); *Juniperus chinensis* (160); *Juniperus communis* (208);
Juniperus horizontalis (208); *Juniperus monosperma* (208); *Juniperus occidentalis* (160);
Juniperus sabina (208); *Juniperus scopulorum* (43, 160); *Juniperus silicicola* (43);
Juniperus squamata (208); *Juniperus virginiana* (160); *Pinus coulteri* (208)

syn. *maui* Bradley 1965; *Cupressobium*

ORIGINAL DESCRIPTION: Can. Entomol. 97:668–670 (21)

TYPE: CNC (ap. viv. original designation) Can. Entomol. 97:670 (21)

REFERENCES: 21 (ap. viv., n)

DISTRIBUTION: United States: HI

HOSTS: *Cryptomeria japonica* (21)

syn. *wacasassae* Tissot 1944; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 27:49–52 (200)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 27:51 (200)

REFERENCES: 43 (n. syn.); 200 (ap. viv., al. viv., b, ld, n)

DISTRIBUTION: United States: FL

HOSTS: *Juniperus silicicola* (200)

gentneri Hottes 1957; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 70:1–3 (92)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 70:2 (92)

REFERENCES: 92 (ap. viv., ovip., ld); 108 (k, ld)

DISTRIBUTION: United States: OR

HOSTS: *Abies concolor* (157); *Abies grandis* (92, 108)

glabra (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:35–37 (59)

TYPE: USNM The Thomas Say Foundation 5:32 (175)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., al. male, ld); 63 (ap. viv., al. viv., b, k, ld);
 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus ponderosa* (59); *Pinus ponderosa* var. *scopulorum* (175)

glacialis Hottes 1964; *Cinara*

ORIGINAL DESCRIPTION: Entomol. Ber. 24:51–53 (115)

TYPE: USNM (ap. viv. original designation) Entomol. Ber. 24:53 (115)

REFERENCES: 115 (ap. viv., ld)

DISTRIBUTION: United States: AK

HOSTS: *Picea sitchensis* (115)

glehna* (Essig) 1915; *Lachnus

ORIGINAL DESCRIPTION: Pom. J. Entomol. Zool. 7:180 (47)

TYPE: UCB Univ. Calif. Pub. Entomol. 3:1-221 (196)

REFERENCES: 47 (ap. viv., al. viv., b, ld); 63 (ap. viv., al. viv., b, k, ld); 111 (k, ld); 133 (ap. viv., b, ld); 143 (n); 196 (k, n)

DISTRIBUTION: United States: AZ, CA, CO, UT; Canada: W. Canada

HOSTS: *Picea engelmannii* (111); *Picea glehnii* (47, 63); *Picea pungens* (133, 143)***gracilis* (Wilson) 1919; *Lachniella***

ORIGINAL DESCRIPTION: Can. Entomol. 51:20-21 (214)

TYPE: USNM (al. viv. lectotype) Fla. Agr. Exp. Sta. Mono. Ser. 3:47 (182)

REFERENCES: 22 (b); 174 (ap. viv., al. viv., ld); 177 (ap. viv., al. viv.); 179 (b);

182 (ap. viv., al. viv., ovip., ap. male, b, k, ld, p); 214 (ap. viv., al. viv.)

DISTRIBUTION: United States: CT, DC, DE, NC, OH, PA, SC, VA, WV; Canada: MB

HOSTS: *Pinus banksiana* (22); *Pinus taeda* (158, 179); *Pinus virginiana* (174, 214)**syn. *tunicula* Hottes 1958; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:187-189 (103)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:189 (103)

REFERENCES: 103 (ap. viv., al. viv., ld); 182 (n. syn.)

DISTRIBUTION: United States: DE

HOSTS: *Pinus virginiana* (103)***grande* Hottes 1956; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:219-220 (90)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:220 (90)

REFERENCES: 90 (ap. viv., ld); 108 (k, ld)

DISTRIBUTION: United States: AZ

HOSTS: *Abies concolor* (90, 108)***harmonia* Hottes 1958; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:192-195 (104)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 71:195 (104)

REFERENCES: 10 (b, k); 104 (ap. viv., al. viv., ld); 182 (ap. viv., al. viv., ovip., b, k, ld, p)

DISTRIBUTION: United States: DE, ME, MI, OH, PA, WV, WI; Canada: ON, PQ

HOSTS: *Pinus resinosa* (10, 104)***hirsuta* Hottes & Essig 1954; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:93-94 (120)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:94 (120)

REFERENCES: 120 (ap. viv., ld)

DISTRIBUTION: United States: OR

HOSTS: *Pinus monticola* (120)***hirta* Hottes & Essig 1953; see *osborni* Knowlton 1942*****hirticula* Hottes 1958; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:87-89 (100)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:89 (100)

REFERENCES: 100 (ap. viv., ld)

DISTRIBUTION: United States: WA

HOSTS: *Pinus lambertiana* (100)

hottesi* (Gillette & Palmer) 1924; *Lachnus

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:22 (59)

TYPE: USNM The Thomas Say Foundation 5:32 (175)

REFERENCES: 10 (b, k); 15 (b); 17 (b); 59 (fund., ap. viv., al. viv., ld);

63 (ap. viv., al. viv., b, k, ld); 83 (ovip., ap. male); 111 (k, ld); 133 (ap. viv., al. viv., b, ld);

143 (n); 175 (fund., ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: CO, ID, UT; Canada: AB, BC, MB, NB, NS, ON, PE, PQ, SK

HOSTS: *Picea engelmannii* (83, 111); *Picea glauca* (15, 53); *Picea mariana* (15, 17)***idahoensis* Knowlton 1935; *Cinara***

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 28:283–284 (134)

TYPE: lost Proc. Entomol. Soc. Wash. 88(2):233 (207)

REFERENCES: 134 (ap. viv., al. viv., ld); 175 (ap. viv., al. viv., k)

DISTRIBUTION: United States: ID

HOSTS: *Thuja* sp. (134)***inoptis* (Wilson) 1919; see *pinea* (Mordvilko) 1895*****inscripta* Hottes & Essig 1953; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:170–171 (118)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:171 (118)

REFERENCES: 17 (b); 118 (ap. viv.)

DISTRIBUTION: United States: OR; Canada: BC

HOSTS: *Pinus albicaulis* (53, 118)***jucunda* Hottes 1958; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:171–172 (102)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:172 (102)

REFERENCES: 102 (ap. viv., ld); 111 (k, ld)

DISTRIBUTION: United States: CO, ND, SD

HOSTS: *Picea glauca* (102)***juniperensis* (Gillette & Palmer) 1925; *Lachnus***

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 18:526–527 (60)

TYPE: USNM The Thomas Say Foundation 5:33 (175)

REFERENCES: 60 (al. viv., ovip., cp, ld); 63 (al. viv., b, k, ld); 175 (al. viv., ovip., b, k, ld)

DISTRIBUTION: United States: CO, OR

HOSTS: *Juniperus communis* (60, 63)***juniperi* (De Geer) 1773; *Aphis***

ORIGINAL DESCRIPTION: Second Mémoire 3:56 (39)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):141 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 10 (b, k, as *rubicundus* (Wilson)); 15 (b); 17 (b, ld);

43 (ap. viv., al. viv., b, k); 46 (ap. viv., al. viv., b, ld)

DISTRIBUTION: United States: CA, MN, NY, OR, PA, UT; Canada: AB, BC, MB, ON, PQ, SK

HOSTS: *Calocedrus decurrens* (208); *Cupressus goveniana* var. *pygmaea* (208);*Juniperus chinensis* (140); *Juniperus communis* (10, 15); *Juniperus squamata* (53);*Juniperus virginiana* (180); *Thuja occidentalis* (46)

juniperivora* (Wilson) 1919; *Lachnus

ORIGINAL DESCRIPTION: Entomol. News 30:6–7 (216)
 TYPE: UMN (cotypes) Ann. Entomol. Soc. Amer. 75(1):75 (34)
 REFERENCES: 84 (n); 177 (al. viv.); 199 (b, k, ld); 200 (n); 216 (al. viv., ld)
 DISTRIBUTION: United States: CT, FL, LA, MD
 HOSTS: *Juniperus silicicola* (199, 200); *Juniperus virginiana* (177, 216)

syn. difficilis* Hottes & Frison 1931; *Cinara

ORIGINAL DESCRIPTION: Ill. Nat. Hist. Surv. Bull. 19:153–155 (124)
 TYPE: INHS (al. viv. original designation) Ill. Nat. Hist. Surv. Bull. 19:155 (124)
 REFERENCES: 84 (n. syn.); 124 (ap. viv., al. viv., b, k, ld)
 DISTRIBUTION: United States: IL
 HOSTS: *Juniperus virginiana* (124)

kinoi* Hottes & Essig 1953; see *arizonica* (Wilson) 1919**kiusa* Hottes 1957; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 70:3–4 (92)
 TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 70:4 (92)
 REFERENCES: 92 (ap. viv., ld); 108 (k, ld)
 DISTRIBUTION: United States: ID, OR
 HOSTS: *Abies concolor* (92, 108)

kocheta* Hottes 1958; see *nigra* (Wilson) 1919**kuchea* Hottes 1958; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:85–86 (99)
 TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:86 (99)
 REFERENCES: 99 (ap. viv., ld)
 DISTRIBUTION: United States: ID; Canada: BC
 HOSTS: *Pinus monticola* (53, 99)

laricifex* (Fitch) 1858; *Lachnus

ORIGINAL DESCRIPTION: Trans. N.Y. Agr. Soc. 17:752 (50)
 TYPE: USNM (ap. viv.) Proc. Biol. Soc. Wash. 66:158 (76)
 REFERENCES: 10 (b, k, as *laricis* (Hartig)); 15 (b); 17 (b); 50 (ap. viv., b); 76 (ap. viv., b);
 167 (ap. viv., b); 197 (ap. viv., b)
 DISTRIBUTION: United States: IL, MN, NY; Canada: AB, MB, NB, NF, NS, NT, ON,
 PQ, SK
 HOSTS: *Larix laricina* (10, 15)

laricifoliae* (Wilson) 1915; *Lachnus

ORIGINAL DESCRIPTION: Trans. Amer. Entomol. Soc. 41:102 (213)
 TYPE: UMN (cotypes) Ann. Entomol. Soc. Amer. 75(1):75 (34)
 REFERENCES: 17 (b, ld); 213 (ap. viv., al. viv., ld)
 DISTRIBUTION: United States: OR; Canada: BC
 HOSTS: *Larix occidentalis* (178, 213)

laricis* (Hartig) 1839; *Lachnus

ORIGINAL DESCRIPTION: Entomol. Notizen 1(4):645 (67)
 TYPE: BM(NH) (lectotype) Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):146 (43)

REFERENCES: 1 (b, k); 10 (misidentification of *laricifex* (Fitch)); 43 (ap. viv., al. viv., b, k);

124 (n); 177 (ap. viv., al. viv.); 184 (ap. viv., b, k, ld)

DISTRIBUTION: United States: CT, IL, NY, PA; Canada: NS

HOSTS: *Larix laricina* (1, 124)

lasiocaruae (Gillette & Palmer) 1930; see *confinis* (Koch) 1856

lassenensis Hottes & Essig 1953; see *arizonica* (Wilson) 1919

longispinosa Tissot 1932; see *pergandei* (Wilson) 1919

louisianensis Boudreault 1948; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 31:96–98 (7)

TYPE: Boudreault (al. viv. original designation) Fla. Entomol. 31:98 (7)

REFERENCES: 7 (ap. viv., al. viv., b, ld); 118 (n); 203 (ap. viv., al. viv., k); 207 (ap. viv., al. viv., ld, p)

DISTRIBUTION: United States: CA, LA, OK; Mexico: MEX, DF

HOSTS: *Cupressus* (207); *Thuja orientalis* (118)

lunata Hottes 1961; see *melaina* Boudreault 1948

lyallii Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:494–495 (12)

TYPE: CNC (ap. viv. original designation) Can. Entomol. 88:495 (12)

REFERENCES: 12 (ap. viv., ovip., male, ld); 17 (b, ld)

DISTRIBUTION: Canada: AB

HOSTS: *Larix laricina* (12); *Larix lyallii* (17)

manitobensis Bradley 1963; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 95:287–290 (19)

TYPE: CNC (ovip. original designation) Can. Entomol. 95:290 (19)

REFERENCES: 19 (ap. viv., al. viv., ovip., ap. male, ld)

DISTRIBUTION: Canada: MB

HOSTS: *Juniperus horizontalis* (19)

mariana Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:706 (13)

TYPE: CNC (ap. viv. original designation) Can. Entomol. 88:706 (13)

REFERENCES: 13 (ap. viv., al. viv., ld)

DISTRIBUTION: Canada: SK

HOSTS: *Picea mariana* (13)

medispinosa (Gillette & Palmer) 1929; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 22:30 (61)

TYPE: USNM The Thomas Say Foundation 5:35 (175)

REFERENCES: 17 (b); 61 (n); 63 (ap. viv., al. viv., b, k, ld);

133 (fund., ap. viv., al. viv., b, ld); 143 (n);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA, CO, ID, OR, UT; Canada: AB, BC

HOSTS: *Pinus contorta* (133, 143); *Pinus contorta* var. *latifolia* (17, 53);

Pinus contorta var. *murrayana* (63, 175)

syn. *similis* (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:23–26 (59)

TYPE: USNM The Thomas Say Foundation 5:35 (175)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., al. male, ld); 61 (name preoccupied by *similis* (van der Goot))

DISTRIBUTION: United States: CO

HOSTS: *Pinus contorta* (59)

melaina* Boudreault 1948; *Cinara

ORIGINAL DESCRIPTION: Fla. Entomol. 31:98–100 (7)

TYPE: Boudreault (al. viv. original designation) Fla. Entomol. 31:99 (7)

REFERENCES: 7 (ap. viv., al. viv., b, ld); 48 (ap. viv., b); 179 (b)

DISTRIBUTION: United States: DE, FL, GA, LA, NC, SC

HOSTS: *Pinus elliottii* (8); *Pinus glabra* (7); *Pinus palustris* (7); *Pinus taeda* (7, 48)

syn. *lunata* Hottes 1961; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 21:20–22 (110)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 21:20–22 (110)

REFERENCES: 110 (ap. viv., al. viv., ld); 182 (n. syn.)

DISTRIBUTION: United States: DE

HOSTS: *Pinus virginiana* (110)

metalica* Hottes 1956; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:85–87 (88)

TYPE: USNM (ovip. original designation) Proc. Biol. Soc. Wash. 69:86 (88)

REFERENCES: 88 (ovip., al. male); 90 (ovip., male, ld); 107 (ap. viv., k, ld)

DISTRIBUTION: United States: AZ, CO

HOSTS: *Pinus edulis* (107)

minuta* Hottes & Knowlton 1954; *Cinara

ORIGINAL DESCRIPTION: Great Basin Nat. 14:11 (125)

TYPE: USNM (ovip. original designation) Great Basin Nat. 14:11 (125)

REFERENCES: 108 (k, ld); 125 (ovip., ld)

DISTRIBUTION: United States: UT

HOSTS: *Abies lasiocarpa* (108, 125)

moketa* Hottes 1957; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 70:6–7 (92)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 70:7 (92)

REFERENCES: 92 (ap. viv., ld); 204 (ap. viv., al. viv., b, k, p)

DISTRIBUTION: United States: CA

HOSTS: *Pinus lambertiana* (92, 204)

montanensis* (Wilson) 1919; *Lachniella

ORIGINAL DESCRIPTION: Can. Entomol. 51:45–46 (215)

TYPE: UMN (cototype slides) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 215 (ap. viv., al. viv.)

DISTRIBUTION: United States: MT

HOSTS: *Pinus nigra* (215)

montanæsa* Hottes 1961; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 74:97–100 (113)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 74:100 (113)

REFERENCES: 113 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: CA

HOSTS: *Pinus coulteri* (113)

murrayanae* (Gillette & Palmer) 1924; *Lachnus

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:26–27 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 24:861 (63)

REFERENCES: 17 (b, ld); 59 (fund., ap. viv., al. viv., ovip., al. male); 63 (b, k, ld, n); 143 (n); 175 (ap. viv., al. viv., ovip., male, b, k, ld)

DISTRIBUTION: United States: CA, CO, ID, UT; Canada: BC

HOSTS: *Pinus albicaulis* (152); *Pinus contorta* (63, 143); *Pinus contorta* var. *latifolia* (17, 53)

nepticula* Hottes 1958; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:63–64 (96)

TYPE: CNC (al. viv. original designation) Proc. Biol. Soc. Wash. 71:64 (96)

REFERENCES: 96 (al. viv., ld); 111 (k, ld)

DISTRIBUTION: Canada: NS

HOSTS: *Picea rubens* (96, 111)

newelli* Tissot 1939; *Cinara

ORIGINAL DESCRIPTION: Fla. Entomol. 22:38–41 (199)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 22:41 (199)

REFERENCES: 182 (ap. viv., al. viv., b, k, ld, p); 199 (ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: FL

HOSTS: *Pinus elliottii* (182, 199); *Pinus taeda* (182)

nigra* (Wilson) 1919; *Lachniella

ORIGINAL DESCRIPTION: Can. Entomol. 51:41–42 (215)

TYPE: UMN (ap. viv. lectotype) Fla. Agr. Exp. Sta. Mono. Ser. 3:72–73 (182)

REFERENCES: 182 (ap. viv., al. viv., ovip., ap. male, b, k, ld, p); 215 (ap. viv., al. viv.)

DISTRIBUTION: United States: MI, UT, WI

HOSTS: *Pinus banksiana* (182); *Pinus* sp. (142)

syn. *kocheta* Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:81–83 (98)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 71:83 (98)

REFERENCES: 98 (al. viv., ld); 182 (n. syn.)

DISTRIBUTION: United States: MI

HOSTS: *Pinus banksiana* (98)

nigripes* Bradley 1962; *Cinara

ORIGINAL DESCRIPTION: Can. Entomol. 94:1175–1178 (18)

TYPE: CNC (al. viv. original designation) Can. Entomol. 94:1178 (18)

REFERENCES: 18 (fund., ap. viv., al. viv., ovip., ap. male, b, ld)

DISTRIBUTION: United States: AK; Canada: BC, ON

HOSTS: *Picea glauca* (18); *Picea mariana* (18); *Picea sitchensis* (53)

nigrata Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:208–209 (119)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:209 (119)

REFERENCES: 119 (al. viv., ld)

DISTRIBUTION: United States: AZ

HOSTS: *Pinus ponderosa* (119)***nimbata*** Hottes 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:253–256 (82)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 67:256 (82)

REFERENCES: 82 (ap. viv., al. viv., ovip., al. male); 83 (ld); 111 (k, ld); 115 (n)

DISTRIBUTION: United States: AK, CO; Canada: W. Canada

HOSTS: *Picea engelmannii* (82, 111)***nitidula*** Hottes 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:256–258 (82)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 67:257 (82)

REFERENCES: 82 (ap. viv., al. viv.); 90 (ovip., ap. male, ld); 107 (k, ld)

DISTRIBUTION: United States: CO, UT

HOSTS: *Pinus edulis* (82, 107)***obscura*** Bradley 1953; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 85:431 (11)

TYPE: CNC (al. viv. original designation) Can. Entomol. 85:431 (11)

REFERENCES: 11 (al. viv., ap. viv., ld); 17 (b); 83 (n); 111 (k, ld)

DISTRIBUTION: Canada: AB, BC, NB, NF, NT, SK

HOSTS: *Picea engelmannii* (53); *Picea glauca* (11, 111)**syn. *enigma*** Hottes & Knowlton 1954; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 14:11–13 (125)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 14:13 (125)

REFERENCES: 83 (n. syn.); 125 (ap. viv., ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus* sp. (125)***occidentalis*** (Davidson) 1909; *Lachnus*

ORIGINAL DESCRIPTION: J. Econ. Entomol. 2:300 (35)

TYPE: USNM Ann. Entomol. Soc. Amer. 75(1):77 (34)

REFERENCES: 17 (b, ld); 35 (ap. viv.); 36 (b, n); 63 (ap. viv., al. viv., b, k, ld); 108 (b, k, ld);

133 (b); 143 (n); 171 (fund., ap. viv., al. viv., ovip., al. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 196 (k, n);

204 (fund., ap. viv., al. viv., ovip., al. male, b, k, p); 211 (fund., al. viv., ovip., al. male)

DISTRIBUTION: United States: AZ, CA, CO, ID, NV, OR, UT; Canada: BC, PQ

HOSTS: *Abies amabilis* (66); *Abies balsamea* (53); *Abies concolor* (175, 196);*Abies grandis* (35, 211); *Abies lasiocarpa* (63, 171); *Abies sibiricae* (52, 53)***onatei*** Hottes & Essig 1953; see *ponderosae* (Williams) 1910***ontarioensis*** Bradley 1962; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 94:1178–1181 (18)

TYPE: CNC (al. viv. original designation) Can. Entomol. 94:1178–1181 (18)

REFERENCES: 18 (al. viv., ap. viv., b, ld); 22 (b)

DISTRIBUTION: Canada: MB, ON

HOSTS: *Pinus banksiana* (18, 22)

oregonensis (Wilson) 1915; *Lachnus*

ORIGINAL DESCRIPTION: Trans. Amer. Entomol. Soc. 41:103 (213)

TYPE: UMN (two slides labeled type) Ann. Entomol. Soc. Amer. 75(1):75 (34)

REFERENCES: 17 (b); 63 (ap. viv., al. viv., b, k, ld);

171 (fund., ap. viv., al. viv., ovip., ap. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., ap. male, b, k, ld); 196 (k, n); 213 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: CA, CO, ID, OR, UT; Canada: AB, SK

HOSTS: *Pinus contorta* var. *latifolia* (17); *Pinus contorta* var. *murrayana* (63, 171);

Pinus ponderosa (63, 175)

oregoni Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:171–172 (118)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:172 (118)

REFERENCES: 118 (ap. viv.)

DISTRIBUTION: United States: OR; Canada: BC

HOSTS: *Pinus albicaulis* (53, 118)

osbourni Knowlton 1942; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 3:7 (139)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 3:7 (139)

REFERENCES: 108 (k, ld); 122 (n); 139 (ap. viv., ld); 175 (ap. viv., k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: AZ, CA, NV, UT

HOSTS: *Abies concolor* (108); *Abies lasiocarpa* (108); *Pseudotsuga menziesii* (142, 175)

syn. *alticola* Hottes & Essig 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:151–152 (121)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:152 (121)

REFERENCES: 121 (ap. viv., ld); 122 (n. syn.)

DISTRIBUTION: United States: NV

HOSTS: none given, probably *Abies* spp.

syn. *hirta* Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:209–210 (119)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:210 (119)

REFERENCES: 45 (n. syn.); 108 (k, ld); 119 (ap. viv., ld); 122 (n)

DISTRIBUTION: United States: AZ

HOSTS: *Abies concolor* (108, 122)

osbourni Tissot 1944; see *pinivora* (Wilson) 1919

osborniana Tissot 1945; see *pinivora* (Wilson) 1919

pacifica (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:21 (214)

TYPE: USNM Can. Entomol. 51:21 (214)

REFERENCES: 108 (k, ld); 174 (al. viv., ld); 214 (al. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Abies grandis* (174, 214)

pallidipes Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:8–10 (94)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:9 (94)

REFERENCES: 94 (ap. viv., al. male, Id); 111 (k, Id)

DISTRIBUTION: United States: ME

HOSTS: *Picea glauca* (94, 111)*palmerae* (Gillette) 1917; see *pruinosa* (Hartig) 1841*paravillosa* Hottes 1955; see *villosa* (Gillette & Palmer) 1931*parvicornis* Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:76–79 (97)

TYPE: USNM (ovip. original designation) Proc. Biol. Soc. Wash. 71:79 (97)

REFERENCES: 97 (ovip., al. male, Id)

DISTRIBUTION: United States: MT

HOSTS: *Pinus contorta* (97)*pergandei* (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:46–47 (215)

TYPE: USNM (cotypes) Fla. Agr. Exp. Sta. Mono. Ser. 3:80 (182)

REFERENCES: 9 (b); 10 (b, k); 15 (b); 17 (b, Id); 22 (b); 174 (ap. viv., al. viv., Id);

177 (ap. viv., al. viv.); 179 (b); 182 (ap. viv., al. viv., ovip., al. male, b, k, Id, p);

215 (ap. viv., al. viv.)

DISTRIBUTION: United States: AL, CT, DC, DE, FL, GA, LA, MD, MI, MN, NE, NC, NJ, NY, OH, PA, SC, VA, VT, WI; Canada: AB, BC, MB, NB, ON, PQ, SK

HOSTS: *Pinus banksiana* (10, 15); *Pinus clausa* (182); *Pinus contorta* var. *latifolia* (17, 180);*Pinus densiflora* (180); *Pinus echinata* (182); *Pinus glabra* (182); *Pinus mugo* (9, 10);*Pinus rigida* (180, 182); *Pinus taeda* (179, 182); *Pinus virginiana* (174, 215)syn. *longispinosa* Tissot 1932; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 16:4–5 (198)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 16:5 (198)

REFERENCES: 10 (n. syn.); 198 (ap. viv., al. viv., Id); 199 (b, k, Id); 200 (n)

DISTRIBUTION: United States: FL, LA, NJ, PA

HOSTS: *Pinus banksiana* (162); *Pinus glabra* (8, 199); *Pinus rigida* (180); *Pinus taeda* (198, 199);*Pinus virginiana* (180)*petersoni* Bradley 1965; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 95:290–291 (19)

TYPE: CNC (ap. viv. original designation) Can. Entomol. 95:291 (19)

REFERENCES: 19 (ap. viv., Id)

DISTRIBUTION: Canada: MB

HOSTS: *Juniperus horizontalis* (19)*piceicola* (Cholodkovsky) 1896; see *pilicornis* (Hartig) 1841*pilicornis* (Hartig) 1841; *Aphis*

ORIGINAL DESCRIPTION: Z. Entomol. (Germar) 3:369 (68)

TYPE: types presumed lost Great Basin Nat. 21:46 (111)

REFERENCES: 43 (ap. viv., al. viv., b, k, Id); 68 (ap. viv.); 76 (n); 111 (k, Id);

184 (ap. viv., b, k, Id); 194 (ap. viv.)

DISTRIBUTION: United States: CA, DC, DE, ID, IL, MA, MD, NJ, OR, PA, UT; Canada: BC, PQ

HOSTS: *Cryptomeria japonica* (208); *Picea abies* (142, 217); *Picea glauca* (217); *Picea pungens* (208, 217); *Tsuga heterophylla* (52, 53)

syn. *piceicola* (Cholodkovsky) 1896; *Lachnus*

ORIGINAL DESCRIPTION: Zool. Anz. 19:148 (32)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):153 (43)

REFERENCES: 1 (b, k); 174 (fund., ap. viv., ovip., b, ld);

175 (fund., ap. viv., al. viv., ovip., ap. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, IN, NY; Canada: NS

HOSTS: *Picea abies* (1, 175); *Picea glauca* (1, 153)

pinata* Hottes 1955; *Cinara

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:199–202 (85)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 68:202 (85)

REFERENCES: 85 (ap. viv., al. viv., ovip., ap. male); 107 (b, k, ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus edulis* (85, 107)

pinea* (Mordvilko) 1895; *Lachnus

ORIGINAL DESCRIPTION: Zool. Anz. 18:100 (166)

TYPE: unknown Fla. Agr. Exp. Sta. Mono. Ser. 3:89 (182)

REFERENCES: 5 (ap. viv., b, k, ld); 10 (b, k, as *pini* (Linnaeus)); 17 (b, ld);

43 (ap. viv., al. viv., b, k, ld); 44 (k, ld, n); 69 (b); 166 (ap. viv., al. viv.);

175 (ap. viv., al. viv., ovip., al. male, b, k, ld);

182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p); 184 (ap. viv., b, k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: DC, IA, IN, ME, MD, MI, MN, NB, NC, NJ, NY, OH, OR, PA, SC, UT, VA, WV, WI; Canada: AB, BC, MB, NB, ON, PE, PQ

HOSTS: *Pinus banksiana* (182, 185); *Pinus nigra* (43, 182); *Pinus resinosa* (182);

Pinus rigida (182); *Pinus strobus* (182); *Pinus sylvestris* (43, 182); *Pinus taeda* (149);

Pinus virginiana (69, 182)

syn. *inoptis* (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:18 (214)

TYPE: USNM Can. Entomol. 51:18 (214)

REFERENCES: 174 (ap. viv., al. viv., ld); 177 (ap. viv., al. viv.) 182 (n. syn.);

214 (ap. viv., al. viv.)

DISTRIBUTION: United States: CT, DC

HOSTS: *Pinus virginiana* (177, 214)

pini* (Linnaeus) 1758; *Aphis

ORIGINAL DESCRIPTION: Systemae Naturae Tom. 1:453 (161)

TYPE: none Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):160 (43)

REFERENCES: 10 (misidentification of *pinea* (Mordvilko)); 27 (b); 43 (ap. viv., al. viv., b, k);

57 (n); 63 (ap. viv., ld); 78 (n); 124 (n); 143 (n); 163 (b); 175 (n); 177 (ap. viv., al. viv.);

209 (ovip., ld)

DISTRIBUTION: United States: CT, FL, IL, MN, MO, NC, NJ, UT

HOSTS: *Pinus nigra* (142); *Pinus sylvestris* (43, 63); *Pinus taeda* (163, 164)

pinicola (Kaltenbach) 1843; *Lachnus*

ORIGINAL DESCRIPTION: Mono. Fam. Pflanzenläuse 154–155 (129)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):152 (43)

REFERENCES: 1 (b, k); 124 (n); 129 (ap. viv., al. viv.); 177 (ap. viv., al. viv.)

DISTRIBUTION: United States: CT, IL, IN, NJ; Canada: NB, NS

HOSTS: *Picea glauca* (1); *Picea rubens* (31)*piniradicis* Bradley 1959; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 91:453–456 (23)

TYPE: CNC (al. viv. original designation) Can. Entomol. 91:456 (23)

REFERENCES: 15 (b); 17 (b, ld); 23 (fund., ap. viv., al. viv., ovip., ap. male, b, ld);

182 (ap. viv., al. viv., ovip., b, k, ld, p)

DISTRIBUTION: United States: MI; Canada: AB, MB, ON, SK

HOSTS: *Pinus banksiana* (15, 23)*pinivora* (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:44 (215)

TYPE: USNM (al. viv. lectotype) Fla. Agr. Exp. Sta. Mono. Ser. 3:104 (182)

REFERENCES: 15 (b); 17 (b, ld); 104 (al. viv., ld); 105 (ap. viv., ld); 177 (al. viv.); 179 (b);

182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p); 203 (ap. viv., al. viv., k)

DISTRIBUTION: United States: AL, CT, DC, DE, FL, GA, LA, MD, MI, MO, NC, NY, OK, PA, SC, TN, UT, VA; Canada: ON, SK

HOSTS: *Pinus banksiana* (15, 182); *Pinus clausa* (182); *Pinus elliottii* (182);*Pinus pungens* (182); *Pinus resinosa* (182); *Pinus rigida* (153, 182); *Pinus sylvestris* (182);*Pinus taeda* (179, 182); *Pinus virginiana* (105, 182)syn. *osborni* Tissot 1944; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 27:45–48 (200)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 27:47–48 (200)

REFERENCES: 200 (ap. viv., al. viv., ld); 201 (name preoccupied by *osborni* Knowlton)

DISTRIBUTION: United States: FL

HOSTS: *Pinus palustris* (200); *Pinus taeda* (200)syn. *osborniana* Tissot 1945; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 27:45–48 (200)

TYPE: USNM (al. viv. original description) Fla. Entomol. 27:47–48 (200)

REFERENCES: 182 (n. syn.); 200 (ap. viv., al. viv., ld);

201 (replacement name for *osborni* Tissot)

DISTRIBUTION: United States: FL

HOSTS: *Pinus palustris* (200); *Pinus taeda* (200)*piñona* Hottes 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:153–154 (76)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 66:153–154 (76)

REFERENCES: 35 (b, k, ld); 76 (ap. viv., al. viv.); 81 (ovip., al. male)

DISTRIBUTION: United States: CA, CO

HOSTS: *Pinus edulis* (81, 107)*poketa* Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69: 220–221 (90)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:221 (90)

REFERENCES: 35 (ovip., k, ld); 90 (ap. viv., ld)

DISTRIBUTION: United States: CA, AZ

HOSTS: *Pinus edulis* (90, 107)

ponderosae (Williams) 1910; *Lachnus*

ORIGINAL DESCRIPTION: Univ. Nebr. Contr. Entomol. 10:85–175 (210)

TYPE: USNM The Thomas Say Foundation 5:41 (175)

REFERENCES: 38 (ld, n); 59 (fund., ovip., ld); 63 (ap. viv., al. viv., b, k, ld); 128 (ld, n);

143 (n); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 196 (k, n);

204 (ap. viv., al. viv., b, k, p); 206 (b); 210 (ap. viv., al. viv., al. male)

DISTRIBUTION: United States: CA, CO, ID, NB, OR, UT; Canada: BC

HOSTS: *Pinus canariensis* (160); *Pinus douglasiana* (208); *Pinus greggii* (208);

Pinus jeffreyi (196, 206); *Pinus michoacana* (208); *Pinus nigra* (208); *Pinus occidentalis* (208);

Pinus ponderosa (59, 143); *Pinus ponderosa* var. *scopulorum* (63, 210); *Pinus quadrifolia* (208)

syn. *onatei* Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:167–168 (118)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:168 (118)

REFERENCES: 45 (n. syn.); 118 (al. viv., ap. viv.)

DISTRIBUTION: United States: CA

HOSTS: *Pinus jeffreyi* (118)

pruinosa (Hartig) 1841; *Lachnus*

ORIGINAL DESCRIPTION: Z. Entomol. (Germar) 3:368 (68)

TYPE: none Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):132 (43)

DISTRIBUTION: United States: UT

HOSTS: *Picea engelmannii* (142); *Picea pungens* (142)

syn. *palmerae* (Gillette) 1917; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 10:135 (58)

TYPE: USNM The Thomas Say Foundation 5:39 (175)

REFERENCES: 1 (b, n); 15 (b); 17 (b); 45 (n. syn.); 63 (ap. viv., al. viv., b, k, ld); 111 (k, ld);

124 (n); 129 (b, k); 175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, IL, IN, NJ, PA; Canada: MB, NS, ON, PQ, SK

HOSTS: *Larix laricina* (1); *Picea abies* (180); *Picea engelmannii* (63, 111); *Picea glauca* (1, 15); *Picea mariana* (1, 15); *Picea pungens* (111, 175)

pseudoschwarzi Palmer 1936; *Cinara*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 29:274–275 (172)

TYPE: USNM (al. viv. original designation) Ann. Entomol. Soc. Amer. 29:275 (172)

REFERENCES: 172 (fund., ap. viv., al. viv., ld); 173 (fund., ap. viv., al. viv., b, ld);

175 (fund., ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: CO

HOSTS: *Pinus ponderosa* (172, 173)

pseudotaxifoliae Palmer 1952; *Cinara*

ORIGINAL DESCRIPTION: The Thomas Say Foundation 5:41–43 (175)

TYPE: USNM The Thomas Say Foundation 5:43 (175)

REFERENCES: 17 (b, ld); 114 (k, ld); 128 (b);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld);

204 (fund., ap. viv., al. viv., ovip., al. male, b, k, p)

DISTRIBUTION: United States: CA, CO, ID, OR, UT, WA; Canada: AB, BC
 HOSTS: *Pseudotsuga menziesii* (53, 142); *Pseudotsuga menziesii* var. *glaucoides* (17)

pseudotsugae (Wilson) 1912; *Lachnus*

ORIGINAL DESCRIPTION: Can. Entomol. 44:302–303 (212)

TYPE: UMN (lectotype) Ann. Entomol. Soc. Amer. 75(1):76 (34)

REFERENCES: 17 (b, ld); 63 (ap. viv., al. viv., b, k, ld); 114 (k, ld);

171 (fund., ap. viv., al. viv., ovip., al. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld);

204 (fund., ap. viv., al. viv., ovip., al. male, b, k, p); 212 (ap. viv., al. viv., ovip., al. male)

DISTRIBUTION: United States: AZ, CA, CO, OR, UT; Canada: BC

HOSTS: *Pseudotsuga menziesii* (63, 171); *Pseudotsuga menziesii* var. *glaucoides* (17)

puerca Hottes 1954; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 67:251–253 (82)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 67:252 (82)

REFERENCES: 80 (n); 83 (al. viv.); 107 (b, k, ld)

DISTRIBUTION: United States: AZ, CO

HOSTS: *Pinus edulis* (82, 83)

pulverulens (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:40–41 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 17:41 (59)

REFERENCES: 59 (ap. viv., al. viv., ovip., ld); 63 (ap. viv., al. viv., b, k, ld); 133 (n);

175 (ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, ID, UT

HOSTS: *Juniperus osteosperma* (175); *Juniperus scopulorum* (59, 175)

radicivora Voegtlín 1982; *Cinara*

ORIGINAL DESCRIPTION: Pan-Pacific Entomol. 58(3):196–201 (205)

TYPE: INHS (ap. viv. original designation) Pan-Pacific Entomol. 58(3):199 (205)

REFERENCES: 205 (ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: CA, OR

HOSTS: *Abies concolor* (205)

rara Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:708 (13)

TYPE: CNC (ovip. original designation) Can. Entomol. 88:708 (13)

REFERENCES: 13 (ovip., al. male, ld); 111 (n); 115 (n)

DISTRIBUTION: United States: AK; Canada: SK

HOSTS: *Picea mariana* (13, 111)

rigidae Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:5–7 (94)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 71:7 (94)

REFERENCES: 94 (ap. viv., al. viv.); 182 (ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: NH

HOSTS: *Pinus rigida* (94)

rubicunda (Wilson) 1915; *Lachnus*

ORIGINAL DESCRIPTION: Trans. Amer. Entomol. Soc. 41:105 (213)

TYPE: UMN Ann. Entomol. Soc. Amer. 75(1):76 (34)

REFERENCES: 10 (misidentification of *juniperi* (De Geer)); 213 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: OR

HOSTS: *Juniperus occidentalis* (213)

russellae Pepper & Tissot 1973; *Cinara*

ORIGINAL DESCRIPTION: Fla. Agr. Exp. Sta. Mono. Ser. 3:110–117 (182)

TYPE: USNM (ap. viv. original designation) Fla. Agr. Exp. Sta. Mono. Ser. 3:116 (182)

REFERENCES: 182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p)

DISTRIBUTION: United States: MI

HOSTS: *Pinus banksiana* (182)

rustica Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:83–85 (88)

TYPE: USNM (ovip. original designation) Proc. Biol. Soc. Wash. 69:84 (88)

REFERENCES: 88 (ap. viv., ovip.); 90 (ap. viv., ovip., ld); 93 (al. viv., ld);

107 (ap. male, b, k, ld)

DISTRIBUTION: United States: AZ, CO

HOSTS: *Pinus edulis* (88, 93)

sabinae (Gillette & Palmer) 1924; see *cupressi* (Buckton) 1881

sabinianus (Swain) 1919; see *arizonica* (Wilson) 1919

saccharinipini Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:157–159 (101)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:159 (101)

REFERENCES: 101 (ap. viv., al. viv., ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CA

HOSTS: *Pinus lambertiana* (101)

saskensis Bradley 1962; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 94:1181–1182 (18)

TYPE: CNC (al. viv. original designation) Can. Entomol. 94:1182 (18)

REFERENCES: 18 (al. viv., b, ld)

DISTRIBUTION: Canada: BC, MB, SK

HOSTS: *Picea engelmannii* (53); *Picea glauca* (18)

schuhi Hottes 1957; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 70:4–6 (92)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 70:6 (92)

REFERENCES: 92 (ap. viv., al. viv., ld); 108 (k, ld)

DISTRIBUTION: United States: OR

HOSTS: *Abies concolor* (92, 108)

schwarzii (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:46 (215)

TYPE: USNM Can. Entomol. 51:46 (215)

REFERENCES: 57 (n); 63 (ap. viv., al. viv., b, k, ld); 121 (n); 170 (ap. viv., al. viv., b, ld, p);

171 (fund., ap. viv., al. viv., ovip., al. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld);

204 (ap. viv., al. viv., ovip., al. male, b, k, p); 215 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ, CA, CO, DC, IN, MD, OR, UT; Mexico: DF
 HOSTS: *Pinus cooperi* (170); *Pinus jeffreyi* (204); *Pinus ponderosa* (204, 215);
Pinus ponderosa var. *scopulorum* (57, 63); *Pinus virginiana* (154)

sclerosa Richards 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:203–204 (186)

TYPE: CNC (ap. viv. original designation) Can. Entomol. 88:204 (186)

REFERENCES: 186 (ap. viv., ld)

DISTRIBUTION: Canada: BC

HOSTS: *Pinus contorta* (186)

serrai Hottes & Essig 1953; see ***arizonica*** (Wilson) 1919

setulosa Hottes & Essig 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:61–63 (123)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:62–63 (123)

REFERENCES: 93 (ovip., al. male, ld); 108 (k, ld); 122 (ap. viv.); 123 (ap. viv.)

DISTRIBUTION: United States: OR

HOSTS: *Abies magnifica* (93, 122)

sibiricae (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:12–14 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 17:14 (59)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., ap. male, ld); 63 (ap. viv., al. viv., b, k, ld); 174 (n); 175 (fund., ap. viv., al. viv., ovip., ap. male, b, k, ld)

DISTRIBUTION: United States: CA, CO, DE, IN, OR, UT, WA

HOSTS: *Juniperus communis* (59, 63); *Juniperus scopulorum* (208)

similis (Gillette & Palmer) 1924; see ***medispinosa*** (Gillette & Palmer) 1929

sitchensis Hottes 1958; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 71:61–62 (95)

TYPE: UCB (ap. viv. original designation) Proc. Biol. Soc. Wash. 71:62 (95)

REFERENCES: 95 (ap. viv., ld); 111 (k, ld)

DISTRIBUTION: CA

HOSTS: *Picea sitchensis* (95, 111)

solitaria (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DISTRIBUTION: Ann. Entomol. Soc. Amer. 17:17–19 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 17:19 (59)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., ld); 63 (ap. viv., al. viv., b, k, ld); 133 (ap. viv.); 175 (fund., ap. viv., al. viv., ovip., b, k, ld)

DISTRIBUTION: United States: CO, UT

HOSTS: *Pinus ponderosa* (59, 133); *Pinus ponderosa* var. *scopulorum* (63, 175)

sonata Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:202–203 (85)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:203 (85)

REFERENCES: 85 (ap. viv.); 93 (al. viv., ovip., al. male, ld); 108 (k, ld)

DISTRIBUTION: United States: ID, OR, WA; Canada: BC

HOSTS: *Abies concolor* (85); *Abies grandis* (85, 93)

soplada Hottes 1956; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 69:65–67 (86)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 69:67 (86)

REFERENCES: 86 (ap. viv.); 94 (al. male, ld); 111 (k, ld)

DISTRIBUTION: United States: ME

HOSTS: *Picea* sp. (86, 94)*spiculosa* Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:492–494 (12)

TYPE: CNC (ap. viv. original designation) Can. Entomol. 88:492–494 (12)

REFERENCES: 12 (ap. viv., al. viv., ld); 15 (b); 17 (b, ld)

DISTRIBUTION: Canada: AB, MB, NB, NS, ON, SK

HOSTS: *Larix laricina* (12, 15)*splendens* (Gillette & Palmer) 1924; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:14–17 (59)

TYPE: USNM Ann. Entomol. Soc. Amer. 17:17 (59)

REFERENCES: 17 (b); 59 (fund., ap. viv., al. viv., ovip., al. male, ld);

63 (ap. viv., al. viv., b, k, ld); 114 (k, ld);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld)

DISTRIBUTION: United States: CO, UT; Canada: BC

HOSTS: *Pseudotsuga menziesii* (59, 63)*strobi* (Fitch) 1851; *Eriosoma*

ORIGINAL DESCRIPTION: Ann. Rep. N.Y. State Cab. Nat. Hist. 4:65 (49)

TYPE: USNM (al. viv.) Fla. Agr. Exp. Sta. Mono. Ser. 3:122 (182)

REFERENCES: 1 (ap. viv., b, k); 10 (b, k); 15 (b); 27 (b); 49 (ap. viv., al. viv., b);

50 (ap. viv., al. viv., b); 124 (n); 165 (b); 177 (ap. viv., al. viv.);

182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p); 183 (b); 187 (b); 197 (ap. viv., al. viv., b);

209 (ovip., al. male, b, ld)

DISTRIBUTION: United States: AR, CT, DC, DE, IL, IN, MA, MD, ME, MI, MO, NC, NH, NJ, NY, OH, PA, SC, VA, WI; Canada: NB, NS, ON, PQ

HOSTS: *Pinus banksiana* (162); *Pinus resinosa* (162); *Pinus strobus* (10, 15)*subterranea* Bradley 1956; *Cinara*

ORIGINAL DESCRIPTION: Can. Entomol. 88:494 (12)

TYPE: CNC (ovip. original designation) Can. Entomol. 88:494 (12)

REFERENCES: 12 (ovip., ld); 17 (b)

DISTRIBUTION: Canada: AB, MB

HOSTS: *Larix laricina* (12, 17)*taedae* Tissot 1932; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 16:5–7 (198)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 16:6 (198)

REFERENCES: 69 (b); 182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p);

198 (ap. viv., al. viv., ld); 199 (k, ld)

DISTRIBUTION: United States: FL, MD, NC, PA, VA

HOSTS: *Pinus clausa* (182); *Pinus elliottii* (182); *Pinus glabra* (182); *Pinus pungens* (182);*Pinus rigida* (180, 182); *Pinus serotina* (182); *Pinus taeda* (198, 199); *Pinus virginiana* (69, 182)

tanneri* (Knowlton) 1930; *Lachnus

ORIGINAL DESCRIPTION: Can. Entomol. 62:155 (133)

TYPE: USNM [?]

REFERENCES: 107 (b, k, ld); 133 (ap. viv., al. viv., ld); 175 (ap. viv., b)

DISTRIBUTION: United States: UT

HOSTS: *Pinus edulis* (107); *Pinus monophylla* (107, 133)***taxifoliae* (Swain) 1918; *Lachnus***

ORIGINAL DESCRIPTION: Trans. Am. Entomol. Soc. 44:11-14 (195)

TYPE: UCB (ap. viv. lectotype) Proc. Biol. Soc. Wash. 74:114 (114)

REFERENCES: 63 (ap. viv., al. viv., b, k, ld); 120 (ap. viv., al. viv., ld); 143 (n);

171 (fund., ap. viv., al. viv., ovip., al. male, b, ld); 195 (ap. viv., al. viv., ld); 196 (k, n)

DISTRIBUTION: United States: AZ, CA, CO, ID, OR, UT

HOSTS: *Pseudotsuga menziesii* (143, 171)***terminalis* (Gillette & Palmer) 1924; *Lachnus***

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 17:19-21 (59)

TYPE: USNM (lectotype) Proc. Biol. Soc. Wash. 73:211 (107)

REFERENCES: 59 (fund., ap. viv., al. viv., ovip., al. male, ld);

63 (ap. viv., al. viv., b, k, ld); 107 (k, ld); 170 (ap. viv., al. viv., b, ld, p);

175 (fund., ap. viv., al. viv., ovip., al. male, b, k, ld); 204 (ap. viv., k)

DISTRIBUTION: United States: CO, UT; Mexico: DF, MEX, MICH

HOSTS: *Pinus cembroides* (170); *Pinus edulis* (59, 107); *Pinus leiophylla* (170);*Pinus michoacana* (170); *Pinus patula* (170); *Pinus pseudostrobus* (170)***thatcheri* Knowlton & Smith 1938; *Cinara***

ORIGINAL DESCRIPTION: Entomol. News 49:66 (143)

TYPE: USNM Entomol. News 49:66 (143)

REFERENCES: 1 (b, k); 143 (al. viv., ap. viv., ld); 175 (n)

DISTRIBUTION: United States: ID, IN, UT; Canada: BC, NS

HOSTS: *Picea glauca* (1); *Pinus ponderosa* (143, 175)***tonaluka* Hottes & Wehrle 1951; *Cinara***

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 64:45-46 (126)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 64:46 (126)

REFERENCES: 74 (n); 126 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ

HOSTS: *Juniperus monosperma* (126)***tsugae* Bradley 1960; *Cinara***

ORIGINAL DESCRIPTION: Can. Entomol. 92:605-608 (16)

TYPE: CNC (al. viv. original designation) Can. Entomol. 92:607 (16)

REFERENCES: 16 (fund., al. viv., ap. viv., ovip., b, ld); 17 (b, ld); 114 (k, ld)

DISTRIBUTION: United States: OR; Canada: BC

HOSTS: *Tsuga heterophylla* (16, 114)***tujafilina* (Del Guercio) 1909; *Lachniella***

ORIGINAL DESCRIPTION: Redia 5:311-312 (40)

TYPE: unknown Bull. Brit. Mus. Nat. Hist. (Entomol.) 27(2):166 (43)

REFERENCES: 5 (ap. viv., b, k, ld); 29 (b, p); 40 (ap. viv.); 43 (ap. viv., al. viv., b, k, ld); 165 (b); 196 (k, n); 199 (b, k, ld, n); 200 (n); 203 (al. viv., ap. viv., k)

DISTRIBUTION: United States: CA, DE, FL, ID, KS, LA, MD, MI, MO, NJ, OK, OR, PA, TX, UT, VA

HOSTS: *Callitris columellaris* (208); *Callitris drummondii* (208); *Callitris gracilis* (208); *Callitris morrisonii* (208); *Callitris murrayensis* (208); *Callitris propinqua* (208); *Callitris rhomboidea* (208); *Chamaecyparis lawsoniana* (208); *Cupressus goveniana* var. *pygmaea* (208); *Juniperus* sp. (43); *Pinus coulteri* (208); *Thuja occidentalis* (43, 196); *Thuja orientalis* (152, 203); *Widdringtonia juniperoides* (208)

syn. winonkae Hottes 1934; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 47:1–2 (72)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 47:2 (72)

REFERENCES: 24 (ap. viv., al. viv., b); 72 (al. viv.); 76 (n. syn.);

175 (ap. viv., al. viv., b, k, ld)

DISTRIBUTION: United States: DE, ID, IN, LA, UT

HOSTS: *Thuja orientalis* (24)

tunicula Hottes 1958; see *gracilis* (Wilson) 1919

utahensis Knowlton & Smith 1938; *Cinara*

ORIGINAL DESCRIPTION: Entomol. News 49:66–68 (143)

TYPE: USNM Entomol. News 49:66 (143)

REFERENCES: 143 (ap. viv., al. viv., ld)

DISTRIBUTION: United States: UT

HOSTS: *Abies lasiocarpa* (143)

vagabunda Hottes & Essig 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:206–208 (119)

TYPE: UCB (al. viv. original designation) Proc. Biol. Soc. Wash. 66:207 (119)

REFERENCES: 114 (ap. viv., k, ld); 119 (al. viv.)

DISTRIBUTION: United States: AZ, MN

HOSTS: *Pinus* sp. (119); *Pseudotsuga menziesii* (114)

vanduzei (Swain) 1919; see *confinis* (Koch) 1856

vandykei (Wilson) 1919; *Lachniella*

ORIGINAL DESCRIPTION: Can. Entomol. 51:19–20 (214)

TYPE: UMN Ann. Entomol. Soc. Amer. 75(1):77 (34)

REFERENCES: 17 (b, ld); 63 (ap. viv., al. viv., b, k, ld); 111 (k, ld); 115 (n);

171 (fund., ap. viv., al. viv., ovip., ap. male, b, ld);

175 (fund., ap. viv., al. viv., ovip., ap. male, b, k, ld); 214 (ap. viv., al. viv.)

DISTRIBUTION: United States: AK, CO, WA; Canada: BC, NB, NF, NS, ON

HOSTS: *Picea engelmannii* (63, 111); *Picea glauca* (115); *Picea sitchensis* (17, 53)

villosa (Gillette & Palmer) 1931; *Lachnus*

ORIGINAL DESCRIPTION: Ann. Entomol. Soc. Amer. 24:847 (63)

TYPE: USNM Ann. Entomol. Soc. Amer. 24:847 (63)

REFERENCES: 17 (b); 63 (k, n); 84 (n); 175 (b, k, ld, n)

DISTRIBUTION: United States: CO, ID, UT; Canada: AB, BC

HOSTS: *Pinus flexilis* (63, 175)

ssp. *curtivillosa* Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:102 (84)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:102 (84)

REFERENCES: 84 (ap. viv.)

DISTRIBUTION: United States: AZ

HOSTS: *Pinus flexilis* (84)**ssp. *parvavillosa*** Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:101 (84)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:101 (84)

REFERENCES: 84 (ap. viv., al. viv.)

DISTRIBUTION: United States: AZ

HOSTS: *Pinus flexilis* (84)***wacasassae*** Tissot 1944; see ***fresai*** Blanchard 1939***wahhaka*** Hottes 1951; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 64:145 (73)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 64:145 (73)

REFERENCES: 73 (ap. viv., ovip.); 75 (al. viv.); 77 (ap. male)

DISTRIBUTION: United States: CO

HOSTS: *Juniperus osteosperma* (73)***wahluca*** Hottes 1952; *Cinara*

ORIGINAL DESCRIPTION: Great Basin Nat. 12:59–61 (74)

TYPE: USNM (ap. viv. original designation) Great Basin Nat. 12:61 (74)

REFERENCES: 74 (ap. viv., ovip., ap. male); 76 (ap. viv.)

DISTRIBUTION: United States: CO

HOSTS: *Juniperus scopulorum* (74, 76)***wahsugae*** Hottes 1960; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 73:197–198 (106)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 73:197 (106)

REFERENCES: 106 (ap. viv., ovip., al. male, ld); 114 (k, ld)

DISTRIBUTION: United States: OR, WA

HOSTS: *Tsuga mertensiana* (114)***wahtolca*** Hottes 1953; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 66:155–157 (76)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 66:157 (76)

REFERENCES: 76 (ap. viv., al. viv.); 81 (ovip.); 89 (al. male); 90 (al. male, ld); 107 (b, k, ld);

204 (ap. viv., k)

DISTRIBUTION: United States: AZ, CA, CO, NV

HOSTS: *Pinus cembroides* (76); *Pinus edulis* (81, 107); *Pinus monophylla* (107)**ssp. *curtiwahtolca*** Hottes 1955; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 68:101–102 (84)

TYPE: USNM (ap. viv. original designation) Proc. Biol. Soc. Wash. 68:102 (84)

REFERENCES: 84 (ap. viv.)

DISTRIBUTION: United States: AZ, UT

HOSTS: *Pinus edulis* (84); *Pinus monophylla* (142)

wanepae Hottes 1933; *Cinara*

ORIGINAL DESCRIPTION: Proc. Biol. Soc. Wash. 46:5 (71)

TYPE: USNM (al. viv. original designation) Proc. Biol. Soc. Wash. 46:5 (71)

REFERENCES: 71 (al. viv., ovip.); 173 (n)

DISTRIBUTION: United States: CO

HOSTS: *Picea pungens* (71, 173)

watsoni Tissot 1939; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 22:43–47 (199)

TYPE: USNM (al. viv. original designation) Fla. Entomol. 22:46 (199)

REFERENCES: 28 (b); 48 (b); 179 (b); 182 (ap. viv., al. viv., ovip., al. male, b, k, ld, p);

199 (ap. viv., al. viv., b, k, ld); 200 (n); 203 (ap. viv., al. viv., k)

DISTRIBUTION: United States: AR, DE, FL, GA, LA, MD, MI, MS, NC, NJ, NY, OH, OK, PA, SC, VA, WV

HOSTS: *Pinus banksiana* (182); *Pinus clausa* (182); *Pinus echinata* (28, 182); *Pinus elliottii* (182, 199); *Pinus glabra* (182, 199); *Pinus pungens* (182); *Pinus resinosa* (180); *Pinus rigida* (155, 182); *Pinus serotina* (182); *Pinus sylvestris* (180); *Pinus taeda* (199, 200); *Pinus virginiana* (28, 199)

westi Tissot & Pepper 1967; *Cinara*

ORIGINAL DESCRIPTION: Fla. Entomol. 50:7–10 (202)

TYPE: USNM (al. viv.) Fla. Entomol. 50:10 (202)

REFERENCES: 182 (ap. viv., al. viv., b, k, ld, p); 202 (ap. viv., al. viv., b, ld)

DISTRIBUTION: United States: FL, SC

HOSTS: *Pinus taeda* (182, 202)

winonae Hottes 1934; see *tujafilina* (Del Guercio) 1909*yukona* Hottes 1964; *Cinara*

ORIGINAL DESCRIPTION: Entomol. Ber. 24:53–54 (115)

TYPE: USNM (al. viv. original designation) Entomol. Ber. 24:54 (115)

REFERENCES: 115 (al. viv., ld)

DISTRIBUTION: United States: AK

HOSTS: *Picea glauca* (115)

zooarcbursara Knowlton 1935; *Cinara*

ORIGINAL DESCRIPTION: Pan-Pac. Entomol. 11:139–140 (136)

TYPE: USNM [?] (only ap. viv. in original description)

REFERENCES: 136 (ap. viv.)

DISTRIBUTION: United States: UT

HOSTS: *Abies concolor* (136, 142)

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Many papers in the literature on aphids are made up almost entirely of lists of species found in particular geographical locations. These papers vary from simple lists of species to lists that include species, hosts, collection dates, and collectors. Although such lists do not contain enough information to warrant including them under the reference heading in the species list, information in them on hosts and localities has been included under the host and distribution headings. In the interest of completeness, however, we have included these citations here preceded by asterisks. Following each such citation is a list of the species mentioned in the paper.

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- *147. Leonard, M.D. 1959. A preliminary list of the aphids of Missouri. Journal of the Kansas Entomological Society 32(1):9–18. Species: *tujafilina*.
- *148. Leonard, M.D. 1963. Additional records of Missouri aphids. Journal of the Kansas Entomological Society 36(2):65–84. Species: *pini*, *strobi*, *tujafilina*.
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- *152. Leonard, M.D. 1968. California aphids in the Cornell University collection (Homoptera: Aphididae). Cornell University Agricultural Experiment Station Memoir 407:1–31. Species: *brevispinosa*, *curvipes*, *murrayanae*, *pseudotsugae*, *schwarzii*, *taxifolia*, *tujafilina*.
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- *189. Robinson, A.G. 1979. Annotated list of aphids (Homoptera: Aphididae) of northwest Canada, Yukon and Alaska. Manitoba Entomologist 13:23–29. Species: *alaskana*, *bonica*, *bonita*, *braggi*, *coloradensis*, *fornacula*, *glacialis*, *laricifex*, *nimbata*, *obscura*, *pergandei*, *rara*, *spiculosa*, *vandykei*, *yukona*.
- *190. Robinson, A.G., and G.A. Bradley. 1965. A preliminary list of the aphids in Manitoba. Proceedings of the Entomological Society of Manitoba 21:39–45. Species: *abieticola*, *banksiana*, *bogdanowi* = *pruinosa*, *braggi*, *gracilis*, *coloradensis*, *curvipes*, *fornacula*, *harmonia*, *hottesi*, *juniperi*, *laricifex*, *manitobensis*, *obscura*, *ontarioensis*, *palmerae*, *pergandei*, *petersoni*, *pinea*, *piniradicis*, *pinivora*, *rara*, *saskensis*, *spiculosa*, *strobi*, *subterranea*.
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- *217. Wilson, H.F., and R.A. Vickery. 1918. A species list of the Aphididae of the world and their recorded food plants. *Transactions of the Wisconsin Academy of Science, Arts and Letters* 19(Part 1):22–355. Species: *abieticola*, *abietis*, *australis*, *confinis*, *costata*, *cupressi*, *curvipes*, *glehna*, *laricifex*, *laricifoliae*, *occidentalis*, *oregonensis*, *piceicola*, *pilicornis*, *pinea*, *pini*, *pinicola*, *ponderosae*, *pruinosa*, *pseudotsugae*, *rubicunda*, *strobi*, *tujafilina*.
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- *219. Wray, D.L. 1967. Insects of North Carolina. Third Supplement. North Carolina Department of Agriculture, Division of Entomology, Raleigh. 181 p. Species: *carolina* (p. 31–32).
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List of Hosts

Family Cupressaceae

Callitris columellaris F.J. Muell.
tujaefilina (Del Guercio) 1909; *Lachniella*

Callitris drummondii Benth.
tujaefilina (Del Guercio) 1909; *Lachniella*

Callitris gracilis R.T. Baker
tujaefilina (Del Guercio) 1909; *Lachniella*

Callitris morrisonii R.T. Baker
tujaefilina (Del Guercio) 1909; *Lachniella*

Callitris murrayensis Miq.
tujaefilina (Del Guercio) 1909; *Lachniella*

Callitris propinqua R. Br.
tujaefilina (Del Guercio) 1909; *Lachniella*

Callitris rhomboidea R. Br.
tujaefilina (Del Guercio) 1909; *Lachniella*

Calocedrus decurrens (Torr.) Florin
juniperi (De Geer) 1773; *Aphis*

Chamaecyparis lawsoniana (A. Murr.) Parl.
tujaefilina (Del Guercio) 1909; *Lachniella*

Cupressus goveniana var. *pygmaea* Lemm.
fresai Blanchard 1939; *Cinara*
juniperi (De Geer) 1773; *Aphis*
tujaefilina (Del Guercio) 1909; *Lachniella*

Cupressus macnabiana A. Murr.
fresai Blanchard 1939; *Cinara*

Cupressus macrocarpa Hartw.
cupressi (Buckton) 1881; *Lachnus*

Cupressus sempervirens L.
fresai Blanchard 1939; *Cinara*

Cupressus sp.
louisianensis Boudreault 1948; *Cinara*

Juniperus chinensis L.
cupressi (Buckton) 1881; *Lachnus*
fresai Blanchard 1939; *Cinara*
juniperi (De Geer) 1773; *Aphis*

Juniperus communis L.
cognita Hottes & Essig 1954; *Cinara*
fresai Blanchard 1939; *Cinara*

juniperensis (Gillette & Palmer) 1925;
Lachnus

juniperi (De Geer) 1773; *Aphis*
sibiricae (Gillette & Palmer) 1924;
Lachnus

Juniperus horizontalis Moench
fresai Blanchard 1939; *Cinara*
manitobensis Bradley 1963; *Cinara*
petersoni Bradley 1965; *Cinara*

Juniperus monosperma (Engelm.) Sarg.
fresai Blanchard 1939; *Cinara*
tonala Hottes & Wehrle 1951; *Cinara*

Juniperus occidentalis Hook.
fresai Blanchard 1939; *Cinara*
rubicunda (Wilson) 1915; *Lachnus*

Juniperus osteosperma (Torr.) Little
burrilli (Wilson) 1919; *Lachniella*
pulverulens (Gillette & Palmer) 1924;
Lachnus
wahhaka Hottes 1951; *Cinara*

Juniperus sabina L.
fresai Blanchard 1939; *Cinara*

Juniperus scopulorum Sarg.
burrilli (Wilson) 1919; *Lachniella*
cupressi (Buckton) 1881; *Lachnus*
fresai Blanchard 1939; *Cinara*
pulverulens (Gillette & Palmer) 1924;
Lachnus
sabinae (Gillette & Palmer) 1924; *Lachnus*
sibiricae (Gillette & Palmer) 1924; *Lachnus*
wahlhaka Hottes 1952; *Cinara*

Juniperus silicicola (Small) Bailey
fresai Blanchard 1939; *Cinara*
juniperivora (Wilson) 1919; *Lachnus*
wacassae Tissot 1944; *Cinara*

Juniperus sp.
curvipes (Patch) 1912; *Lachnus*
tujaefilina (Del Guercio) 1909; *Lachniella*

Juniperus squamata Lamb.
fresai Blanchard 1939; *Cinara*
juniperi (De Geer) 1773; *Aphis*

Juniperus virginiana L.

canadensis Hottes & Bradley 1953; *Cinara cupressi* (Buckton) 1881; *Lachnus difficilis* Hottes & Frison 1931; *Cinara fresai* Blanchard 1939; *Cinara juniperi* (De Geer) 1773; *Aphis juniperivora* (Wilson) 1919; *Lachnus sabinae* (Gillette & Palmer) 1924; *Lachnus*

Thuja occidentalis L.

juniperi (De Geer) 1773; *Aphis tujafilina* (Del Guercio) 1909; *Lachniella*

Thuja orientalis (L.) Franco

louisianensis Boudreaux 1948; *Cinara tujafilina* (Del Guercio) 1909; *Lachniella winonae* Hottes 1934; *Cinara*

Thuja sp.

cupressi (Buckton) 1881; *Lachnus idahoensis* Knowlton 1935; *Cinara*

Widdringtonia juniperoides Endl.

tujafilina (Del Guercio) 1909; *Lachniella*

Family Pinaceae

Abies amabilis Dougl. ex Forbes

occidentalis (Davidson) 1909; *Lachnus*

Abies balsamea (L.) Mill.

abieticola (Cholodkovsky) 1899; *Lachnus curvipes* (Patch) 1912; *Lachnus lasiocarpae* (Gillette & Palmer) 1930; *Lachnus occidentalis* (Davidson) 1909; *Lachnus*

Abies concolor (Gord. & Glend.) Lindl. ex

abieticola (Cholodkovsky) 1899; *Lachnus abietis* (Fitch) 1851; *Lachnus alacra* Hottes & Essig 1953; *Cinara curtihirsuta* Hottes & Essig 1954; *Cinara curvipes* (Patch) 1912; *Lachnus ferrisi* (Swain) 1918; *Lachnus gentneri* Hottes 1957; *Cinara grande* Hottes 1956; *Cinara hirta* Hottes & Essig 1953; *Cinara kiusa* Hottes 1957; *Cinara occidentalis* (Davidson) 1909; *Lachnus osborni* Knowlton 1942; *Cinara radicivora* Voegtl 1982; *Cinara*

schuhi Hottes 1957; *Cinara*

sonata Hottes 1955; *Cinara*
zoarcubursara Knowlton 1935; *Cinara*

Abies grandis (Dougl. ex D. Don) Lindl.

abieticola (Cholodkovsky) 1899; *Lachnus confinis* (Koch) 1856; *Lachnus curvipes* (Patch) 1912; *Lachnus gentneri* Hottes 1957; *Cinara occidentalis* (Davidson) 1909; *Lachnus pacifica* (Wilson) 1919; *Lachniella sonata* Hottes 1955; *Cinara*

Abies lasiocarpa (Hook.) Nutt

abieticola (Cholodkovsky) 1899; *Lachnus chinookiana* Hottes 1955; *Cinara confinis* (Koch) 1856; *Lachnus curvipes* (Patch) 1912; *Lachnus lasiocarpae* (Gillette & Palmer) 1930; *Lachnus*

minuta Hottes & Knowlton 1954; *Cinara occidentalis* (Davidson) 1909; *Lachnus osborni* Knowlton 1942; *Cinara utahensis* Knowlton & Smith 1938; *Cinara*

Abies magnifica A. Murr.

curvipes (Patch) 1912; *Lachnus setulosa* Hottes & Essig 1955; *Cinara*

Abies religiosa (HBK) Schlechtend & Cham.

curvipes (Patch) 1912; *Lachnus*

Abies sibiricae Ledeb.

occidentalis (Davidson) 1909; *Lachnus*

Abies sp.

engelmanniensis (Gillette & Palmer) 1925; *Lachnus*

Cedrus deodara Loud.

curvipes (Patch) 1912; *Lachnus*

Cedrus sp.

abieticola (Cholodkovsky) 1899; *Lachnus*

Larix laricina (Du Roi) K. Koch

laricifex (Fitch) 1858; *Lachnus*

laricis (Hartig) 1839; *Lachnus*

lyallii Bradley 1956; *Cinara*

palmerae (Gillette) 1917; *Lachnus*

spiculosa Bradley 1956; *Cinara*

subterranea Bradley 1956; *Cinara*

Larix lyallii Parl.
lyallii Bradley 1956; *Cinara*

Larix occidentalis Nutt.
laricifoliae (Wilson) 1915; *Lachnus*

Picea abies (L.) Karst.
braggi (Gillette) 1917; *Lachnus*
costata (Zetterstedt) 1828; *Aphis*
fornacula Hottes 1930; *Cinara*
palmerae (Gillette) 1917; *Lachnus*
piceicola (Cholodkovsky) 1896; *Lachnus*
pilicornis (Hartig) 1841; *Aphis*

Picea engelmannii Parry ex Engelm.
braggi (Gillette) 1917; *Lachnus*
caliginosa Hottes 1961; *Cinara*
coloradensis (Gillette) 1917; *Lachnus*
curvipes (Patch) 1912; *Lachnus*
engelmanni (Gillette & Palmer) 1925;
Lachnus
fornacula Hottes 1930; *Cinara*
glehna (Essig) 1915; *Lachnus*
hottesi (Gillette & Palmer) 1924; *Lachnus*
nimbata Hottes 1954; *Cinara*
obscura Bradley 1953; *Cinara*
palmerae (Gillette) 1917; *Lachnus*
pruinosa (Hartig) 1841; *Lachnus*
saskensis Bradley 1962; *Cinara*
vandykei (Wilson) 1919; *Lachniella*

Picea glauca (Moench) Voss
acadiana Hottes 1956; *Cinara*
atripes Hottes 1958; *Cinara*
bonita Hottes 1956; *Cinara*
braggi (Gillette) 1917; *Lachnus*
coloradensis (Gillette) 1917; *Lachnus*
costata (Zetterstedt) 1828; *Aphis*
curvipes (Patch) 1912; *Lachnus*
fornacula Hottes 1930; *Cinara*
hottesi (Gillette & Palmer) 1924; *Lachnus*
jucunda Hottes 1958; *Cinara*
nigripes Bradley 1962; *Cinara*
obscura Bradley 1953; *Cinara*
pallidipes Hottes 1958; *Cinara*
palmerae (Gillette) 1917; *Lachnus*
piceicola (Cholodkovsky) 1896; *Lachnus*
pilicornis (Hartig) 1841; *Aphis*
pinicola (Kaltenbach) 1843; *Lachnus*
saskensis Bradley 1962; *Cinara*
thatcheri Knowlton & Smith 1938; *Cinara*

vandykei (Wilson) 1919; *Lachniella*
yukona Hottes 1964; *Cinara*

Picea glehnii (Friedr. Schmidt) M.T. Mast
glehna (Essig) 1915; *Lachnus*

Picea mariana (Mill.) B.S.P.
abietis (Fitch) 1851; *Lachnus*
braggi (Gillette) 1917; *Lachnus*
fornacula Hottes 1930; *Cinara*
hottesi (Gillette & Palmer) 1924; *Lachnus*
marianna Bradley 1956; *Cinara*
nigripes Bradley 1962; *Cinara*
palmerae (Gillette) 1917; *Lachnus*
rara Bradley 1956; *Cinara*

Picea pungens Engelm.
braggi (Gillette) 1917; *Lachnus*
caliginosa Hottes 1961; *Cinara*
coloradensis (Gillette) 1917; *Lachnus*
costata (Zetterstedt) 1828; *Aphis*
fornacula Hottes 1930; *Cinara*
glehna (Essig) 1915; *Lachnus*
palmerae (Gillette) 1917; *Lachnus*
pilicornis (Hartig) 1841; *Aphis*
pruinosa (Hartig) 1841; *Lachnus*
wanepae Hottes 1933; *Cinara*

Picea rubens Sarg.
braggi (Gillette) 1917; *Lachnus*
fornacula Hottes 1930; *Cinara*
nepticula Hottes 1958; *Cinara*
pinicola (Kaltenbach) 1843; *Lachnus*

Picea sitchensis (Bong.) Carr.
braggi (Gillette) 1917; *Lachnus*
coloradensis (Gillette) 1917; *Lachnus*
costata (Zetterstedt) 1828; *Aphis*
fornacula Hottes 1930; *Cinara*
glacialis Hottes 1964; *Cinara*
nigripes Bradley 1962; *Cinara*
sitchensis Hottes 1958; *Cinara*
vandykei (Wilson) 1919; *Lachniella*

Picea sp.
abieticola (Cholodkovsky) 1899; *Lachnus*
alaskana Hottes 1964; *Cinara*
bonica Hottes 1956; *Cinara*
caudelli (Wilson) 1919; *Lachniella*
soplada Hottes 1956; *Cinara*
vanduzei (Swain) 1919; *Lachnus*

Pinus albicaulis Engelm.
anzai Hottes & Essig 1953; *Cinara ferrisi* (Swain) 1918; *Lachnus inscripta* Hottes & Essig 1953; *Cinara murrayanae* (Gillette & Palmer) 1924;
Lachnus oregoni Hottes & Essig 1953; *Cinara*

Pinus attenuata Lemm.
essigi Hottes 1961; *Cinara*

Pinus banksiana Lamb.
apini (Gillette & Palmer) 1924; *Lachnus banksiana* Pepper & Tissot 1955; *Cinara brevispinosa* (Gillette & Palmer) 1924;
Lachnus canadensis Hottes & Bradley 1953; *Cinara cruentata* Tissot & Pepper 1967; *Cinara gracilis* (Wilson) 1919; *Lachniella kocheta* Hottes 1958; *Cinara longispinosa* Tissot 1932; *Cinara nigra* (Wilson) 1919; *Lachniella ontarioensis* Bradley 1962; *Cinara pergandei* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus piniradicis* Bradley 1959; *Cinara pinivora* (Wilson) 1919; *Lachniella russellae* Pepper & Tissot 1973; *Cinara strobi* (Fitch) 1851; *Eriosoma watsoni* Tissot 1939; *Cinara*

Pinus canariensis C. Smith
ponderosae (Williams) 1910; *Lachnus*

Pinus cembroides Zucc.
terminalis (Gillette & Palmer) 1924;
Lachnus wahtolca Hottes 1953; *Cinara*

Pinus clausa (Chapm. ex Engelm.) Vasey ex Sarg.
atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara cruentata* Tissot & Pepper 1967; *Cinara pergandei* (Wilson) 1919; *Lachniella pinivora* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*

Pinus contorta Dougl. ex Loud.
brevispinosa (Gillette & Palmer) 1924;
Lachnus

Pinus contorta var. *latifolia* Engelm.
brevispinosa (Gillette & Palmer) 1924;
Lachnus canadensis Hottes & Bradley 1953; *Cinara medispinosa* (Gillette & Palmer) 1929;
Lachnus murrayanae (Gillette & Palmer) 1924;
Lachnus parvicornis Hottes 1958; *Cinara sclerosa* Richards 1956; *Cinara similis* (Gillette & Palmer) 1924; *Lachnus*

Pinus contorta var. *murrayana* Grev. & Balf.
brevispinosa (Gillette & Palmer) 1924;
Lachnus medispinosa (Gillette & Palmer) 1929;
Lachnus oregonensis (Wilson) 1915; *Lachnus pergandei* (Wilson) 1919; *Lachniella*

Pinus cooperi C.E. Blanco
schwarzii (Wilson) 1919; *Lachniella*

Pinus coulteri D. Don
arizonica (Wilson) 1919; *Lachniella diabola* Hottes 1961; *Cinara fresai* Blanchard 1939; *Cinara montana* Hottes 1961; *Cinara tujafilina* (Del Guercio) 1909; *Lachniella*

Pinus densiflora Siebold & Zucc.
pergandei (Wilson) 1919; *Lachniella*

Pinus douglasiana Martínez
californica Hottes & Essig 1953; *Cinara ponderosae* (Williams) 1910; *Lachnus*

Pinus durangensis Roezl.
californica Hottes & Essig 1953; *Cinara*

Pinus echinata Mill.
atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara pergandei* (Wilson) 1919; *Lachniella watsoni* Tissot 1939; *Cinara*

Pinus edulis Engelm.

apacheca Hottes & Butler 1955; *Cinara ater* (Gillette & Palmer) 1924; *Lachnus atra* (Gillette & Palmer) 1924; *Lachnus caliente* Hottes 1955; *Cinara curtivahtolca* Hottes 1955; *Cinara edulis* (Wilson) 1919; *Lachniella metalica* Hottes 1956; *Cinara nitidula* Hottes 1954; *Cinara pinata* Hottes 1955; *Cinara piñona* Hottes 1953; *Cinara poketa* Hottes 1956; *Cinara puerca* Hottes 1954; *Cinara rustica* Hottes 1956; *Cinara tanneri* (Knowlton) 1930; *Lachnus terminalis* (Gillette & Palmer) 1924; *Lachnus wahtolca* Hottes 1953; *Cinara*

Pinus elliottii Engelm.

atlantica (Wilson) 1919; *Lachniella cronartii* Tissot & Pepper 1967; *Cinara melanina* Boudreault 1948; *Cinara newelli* Tissot 1939; *Cinara pinivora* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*

Pinus flexilis James

apini (Gillette & Palmer) 1924; *Lachnus curtivillosa* Hottes 1955; *Cinara flexilis* (Gillette and Palmer) 1924; *Lachnus parvavillosa* Hottes 1955; *Cinara villosa* (Gillette & Palmer) 1931; *Lachnus*

Pinus glabra Walt.

arizonica (Wilson) 1919; *Lachniella atlantica* (Wilson) 1919; *Lachniella californica* Hottes & Essig 1953; *Cinara carolina* Tissot 1932; *Cinara longispinosa* Tissot 1932; *Cinara melanina* Boudreault 1948; *Cinara pergandei* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*

Pinus greggii Engelm.

ponderosae (Williams) 1910; *Lachnus*

Pinus jeffreyi Grev. & Balf.

arizonica (Wilson) 1919; *Lachniella onatei* Hottes & Essig 1953; *Cinara ponderosae* (Williams) 1910; *Lachnus schwarzii* (Wilson) 1919; *Lachniella*

Pinus lambertiana Dougl.

hirticula Hottes 1958; *Cinara moketa* Hottes 1957; *Cinara saccharinipini* Hottes 1958; *Cinara*

Pinus leiophylla Schiede & Deppe

terminalis (Gillette & Palmer) 1924; *Lachnus*

Pinus lumholzii Robinson & Fernald

californica Hottes & Essig 1953; *Cinara*

Pinus michoacana Martínez

ponderosae (Williams) 1910; *Lachnus terminalis* (Gillette & Palmer) 1924; *Lachnus*

Pinus monophylla Torr. & Frem.

atra (Gillette & Palmer) 1924; *Lachnus curtivahtolca* Hottes 1955; *Cinara edulis* (Wilson) 1919; *Lachniella tanneri* (Knowlton) 1930; *Lachnus wahtolca* Hottes 1953; *Cinara*

Pinus monticola Dougl. ex D. Don

chamberlini Knowlton 1935; *Cinara ferrisi* (Swain) 1918; *Lachnus hirsuta* Hottes & Essig 1954; *Cinara kuchea* Hottes 1958; *Cinara*

Pinus mugo Turra

pergandei (Wilson) 1919; *Lachniella*

Pinus nigra Arnold

californica Hottes & Essig 1953; *Cinara montanensis* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pini* (Linnaeus) 1758; *Aphis ponderosae* (Williams) 1910; *Lachnus*

Pinus occidentalis Sw.

arizonica (Wilson) 1919; *Lachniella californica* Hottes & Essig 1953; *Cinara ponderosae* (Williams) 1910; *Lachnus*

Pinus oocarpa Schiede
azteca Hottes & Essig 1954; *Cinara californica* Hottes & Essig 1953; *Cinara*

Pinus palustris Mill.
carolina Tissot 1932; *Cinara melanina* Boudreault 1948; *Cinara osbourni* Tissot 1944; *Cinara*

Pinus patula Schlechtend. & Cham.
californica Hottes & Essig 1953; *Cinara terminalis* (Gillette & Palmer) 1924;
Lachnus

Pinus ponderosa Dougl. ex Laws.
americana Hottes & Essig 1953; *Cinara arizonica* (Wilson) 1919; *Lachniella glabra* (Gillette & Palmer) 1924; *Lachnus kinoi* Hottes & Essig 1953; *Cinara lassenensis* Hottes & Essig 1953; *Cinara nigrina* Hottes & Essig 1953; *Cinara oregonensis* (Wilson) 1915; *Lachnus ponderosae* (Williams) 1910; *Lachnus pseudoschwarzii* Palmer 1936; *Cinara schwarzii* (Wilson) 1919; *Lachniella serrai* Hottes & Essig 1953; *Cinara solitaria* (Gillette & Palmer) 1924; *Lachnus thatcheri* Knowlton & Smith 1938; *Cinara*

Pinus ponderosa var. *scopulorum* Engelm.
glabra (Gillette & Palmer) 1924; *Lachnus ponderosae* (Williams) 1910; *Lachnus schwarzii* (Wilson) 1919; *Lachniella solitaria* (Gillette & Palmer) 1924; *Lachnus*

Pinus pseudostrobus Lindl.
terminalis (Gillette & Palmer) 1924;
Lachnus

Pinus pungens Lamb.
atlantica (Wilson) 1919; *Lachniella pinivora* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*

Pinus quadrifolia Parl. ex Sudw.
ponderosae (Williams) 1910; *Lachnus*

Pinus resinosa Ait.
atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara*

harmonia Hottes 1958; *Cinara pinea* (Mordvilko) 1895; *Lachnus pinivora* (Wilson) 1919; *Lachniella strobi* (Fitch) 1851; *Eriosoma watsoni* Tissot 1939; *Cinara*

Pinus rigida Mill.
atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara longispinosa* Tissot 1932; *Cinara pergandei* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pinivora* (Wilson) 1919; *Lachniella rigidae* Hottes 1958; *Cinara taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*

Pinus roxburghii Sarg.
californica Hottes & Essig 1953; *Cinara*

Pinus sabiniana Dougl.
arizonica (Wilson) 1919; *Lachniella sabinianus* (Swain) 1919; *Lachnus*

Pinus serotina Michx.
atlantica (Wilson) 1919; *Lachniella cronartii* Tissot & Pepper 1967; *Cinara taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara*

Pinus sp.
brevipilosa Voegtl. Remaudière, Peña 1986; *Cinara*
enigma Hottes & Knowlton 1954; *Cinara nigra* (Wilson) 1919; *Lachniella vagabunda* Hottes & Essig 1953; *Cinara*

Pinus strobus L.
atlantica (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus strobi* (Fitch) 1851; *Eriosoma*

Pinus sylvestris L.
atlantica (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pini* (Linnaeus) 1758; *Aphis pinivora* (Wilson) 1919; *Lachniella watsoni* Tissot 1939; *Cinara*

Pinus tabulaeformis Carr.
californica Hottes & Essig 1953; *Cinara*

Pinus taeda L.

atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara crontartii* Tissot & Pepper 1967; *Cinara gracilis* (Wilson) 1919; *Lachniella longispinosa* Tissot 1932; *Cinara melaina* Boudreault 1948; *Cinara newelli* Tissot 1939; *Cinara osborni* Tissot 1944; *Cinara pergandei* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pini* (Linnaeus) 1758; *Aphis pinivora* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara watsoni* Tissot 1939; *Cinara westi* Tissot & Pepper 1967; *Cinara*

Pinus virginiana Mill.

atlantica (Wilson) 1919; *Lachniella carolina* Tissot 1932; *Cinara gracilis* (Wilson) 1919; *Lachniella inoptis* (Wilson) 1919; *Lachniella longispinosa* Tissot 1932; *Cinara lunata* Hottes 1961; *Cinara pergandei* (Wilson) 1919; *Lachniella pinea* (Mordvilko) 1895; *Lachnus pinivora* (Wilson) 1919; *Lachniella schwarzii* (Wilson) 1919; *Lachniella taedae* Tissot 1932; *Cinara tunicula* Hottes 1958; *Cinara watsoni* Tissot 1939; *Cinara*

Pinus wallichiana A.B. Jack

arizonica (Wilson) 1919; *Lachniella*

Pseudotsuga menziesii (Mirb.) Franco
commatula Hottes & Essig 1954; *Cinara dubia* Hottes & Essig 1954; *Cinara osborni* Knowlton 1942; *Cinara pseudotaxifoliae* Palmer 1952; *Cinara pseudotsugae* (Wilson) 1912; *Lachnus splendens* (Gillette & Palmer) 1924; *Lachnus taxifoliae* (Swain) 1918; *Lachnus vagabunda* Hottes & Essig 1953; *Cinara*

Pseudotsuga menziesii var. *glauca* (Beissn.) Franco

pseudotaxifoliae Palmer 1952; *Cinara pseudotsugae* (Wilson) 1912; *Lachnus*

Tsuga heterophylla (Raf.) Sarg.
pilicornis (Hartig) 1841; *Aphis tsugae* Bradley 1960; *Cinara*

Tsuga mertensiana (Bong.) Carr.
wahsugae Hottes 1960; *Cinara*

Family Taxodiaceae

Cryptomeria japonica D. Don

maui Bradley 1965; *Cupressobium pilicornis* (Hartig) 1841; *Aphis*

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